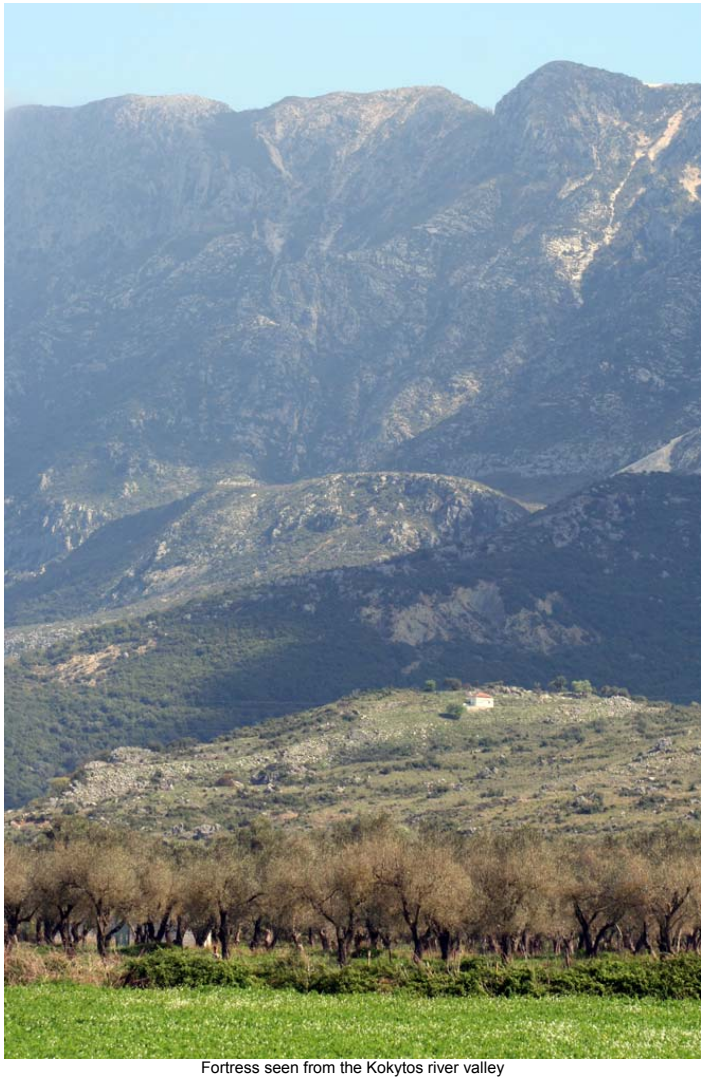
The walls of Agios Donatos Zervochoriou

-A case study of a fortress in Thesprotia, northwestern Greece



Fortress seen from the Kokytos river valley

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1. Introduction

The northwestern corner periphery of modern Greece is known as Epirus, *the Mainland* (Hammond 1967: 5). It is an area bordered in modern terms by the Ionian sea in the west, Albania in the north, peripheries of Macedonia, Thessaly and Aetolia in the eastern parts and the Ambrakian Gulf in the south. One of the four prefectures of Epirus is called Thesprotia, it in turn being located between the prefectures of Nikopolis in the south, Ioannina in the east, the state border of Albania in the north and the Ionian Sea in the east. The prefecture has been named after the Thesprotoi, one of the tribes who inhabited the area in Antiquity. In Thesprotia there are two major rivers, the Acheron in the south and the Kalamas in the north, in between which there flows the river Kokytos.

Kokytos flows roughly from north to south in a fertile valley, through the municipalities of Paramythia and Acheronta, finally confluencing into river Acheron and thence to the Ionian Sea in Phanari Bay at Ammoudhia. Both the eastern and western sides of the Kokytos valley are bound by mountain ranges, with the high Paramythias range in the east and a nameless, lower mountain range to the west. The foothills of the Paramythias mountains are occupied by a number of fortified sites. On one of these foothill ridges near the modern village of Zervochori there stands a small chapel known as Agios Donatos Zervochoriou, named after the local patron saint Saint Donatos. Around the chapel the hillside is strewn with remains of an ancient fortress, of which nothing really is known – in the maps the ridge doesn't even have a name except that of the 17th century chapel.

The fortress had never been studied archaeologically, and the only literary mentions of the site were by two 20th century archaeologists who only shortly visited the site. This changed in 2005 and 2006 when the fortress was studied in detail by the Thesprotia Expedition of the Finnish Institute at Athens, as a part of an interdisciplinary survey project conducted in the Kokytos valley. During the two field seasons the fortress was intensively

studied by the means of a surface survey, mapping of the site and an archaeological excavation of selected areas. As a member of the team I got to study the remains first hand and was offered the opportunity of writing my MA-thesis on the subject.

The purpose of this study is to answer the questions posed by the remains, with an aim of dating the fortress as the first objective. The time-frame of this study is late Classical and the Hellenistic period. In history the Classical era is defined as the period from the Persian Wars to the death of Alexander the Great, 479 to 323 B.C. One of the major events of the period was the Peloponnesian War between 431 and 404 B.C. During the bitter struggle between the major powers of Greece, Athens and Sparta, warfare changed from earlier ritualistic one to a more determined, strategic struggle aiming to capture and hold certain key positions. (Kern 1999: 97; Wilson 2006: 165, 547.)

The death of Alexander in 323 B.C. marked the beginning of the Hellenistic period, a time plagued by inter-state and inter-alliance rivalry and warfare. Small city-states, *poleis* allied themselves into different leagues or against each other as they saw fit in the turmoil following Alexander's death. Among the most powerful Greek states and alliances of the third century B.C. were the kingdom of Macedon and two rivalling alliances, the Achaean League and the Aetolian Confederacy, all of which had a major impact in the history of Greece. Epirus, an ally and occasional enemy of Macedon and a bitter enemy of its southern neighbour, the Aetolian Confederacy, was also influenced and ravaged by these power-struggles. Such restless times prompted the building of fortifications which are especially abundant in Epirus. It had until recently been the domain of nomadic shepherds, but grew to play a major role by the first decades of the third century under king Pyrrhus and his successors. In southern Epirus and especially Thesprotia the Hellenistic period was cut short by the Romans who in 167 B.C. systematically razed and plundered the area as a retaliation of previous Epirote treachery (Sakellariou 1997: 116). Elsewhere in the Greek world the Hellenistic period lasted until the Battle of Actium in 31 B.C. The sea-battle

of Actium resulted in the complete Roman control of the eastern Mediterranean by crushing the opposition of Marc Anthony and Cleopatra of Egypt. Actually, by this time Rome had already controlled the area of modern Greece for more than a century, first the northern part through crushing the kingdom of Macedon in 168 and absorbing the rest a generation later, in 146 B.C. following the Achaian War. (Wilson 2006: 22, 343, 591-592 , 628.)

Fortifications had been a part of Greek landscape from the Bronze Age onward, and the basic method of building remained the same until the Roman conquest. Greek walls were built of large stone blocks without mortar. There are sufficient numbers of fortifications of different periods left in Greece and adjacent areas to form a basis for chronology. The shape of blocks changed over time and there were regional differences in the timing of these changes. Understanding the changes in masonry styles is one part of dating the walls.

Siege warfare influenced the design of fortified sites. In the Greek world actual siege engines were a fairly recent adaptation from the Middle Eastern cultures, and were only used from the Peloponnesian War onward, i.e. the final decades of the fifth century. Adaptation and invention of of new siege methods including the powerful catapults was then rapid, and by the early Hellenistic period the builders of fortified sites really had to come up with solutions to stand up to them. When studying a site, identifying traces of certain kinds of gates, towers, breastworks and even outworks before the actual fortifications can also help in dating it.

All these stylistic features are then compared with known parallels found in relatively abundant literature on fortifications in the Greek world. Parallels help in narrowing down the time-frame, and can also explain something on the nature of certain fortresses. When all this is finally combined with the known historical background and archaeological data one can get a fairly good idea on the chronology of a site.

The second aim of this study is to try to explain the nature of the site - to answer the question why anyone would have built a fortress on this actual spot. Building such a monumental structure would obviously have been very expensive, so one has to have had a good reason to build the fortress on this very spot, disadvantageous as it is on its relatively low position. There will also be an appendix and an associated map listing all the fortified sites in Thesprotia, along with any information known. Some of the sites I have been able to visit personally, while the rest have been compiled from literary sources. A few claimed fortress sites are also included, although they turned out to be anything but forts.

1.1. The Thesprotia Expedition – a background

The Kokytos river valley has been studied by the Thesprotia Expedition since 2004. It is a multidisciplinary research project of the Finnish Institute at Athens under Dr. Björn Forsén. The five-year project has the aim to writing the diachronic history of the Kokytos valley from the Palaeolithic period down to modern times, involving archaeology, history, geology and GIS to understand the changes over time. This is the first intensive survey conducted in Thesprotia, and only the second in all of Epirus. (The Thesprotia Expedition, Introduction. WWW-page 20.11.2006.)

The first season in May and June of 2004 consisted of archaeological survey down on the valley floor. The research was conducted by means of field-walking on the fields near the villages of Xirolophos, Kyra Panagia and Sevaston near the northern end of the river and the major village of Paramythia. The following five-week field season in June and July of 2005 was concentrated slightly to the south of the 2004 area, but now the work included also walking on the hill slopes in addition to the valley floor. Most importantly, the fortress received special attention with one team on the site all season long. Work on the fortress involved clearing the trace of walls of vegetetation by the local workers of the 32nd Ephorate for Prehistoric and Classical Archaeology, while the documentation of walls, cleaning the topsoil

from selected areas as well as gathering and sampling the finds from the area were carried out by the survey members. In addition the whole ridge and its surroundings were mapped in detail using a total station, with an aim of creating a 3-D model of the site.

Work on the fortress was resumed in the summer of 2006. During five weeks of work two trial trenches were opened within the fortress. A 2 x 4 meter trench was excavated across the corridor of the southeastern gate and another trench of similar size was opened across the southern half of the tower. The gateway was excavated down to the bedrock and the tower was excavated until the sterile reddish bottom clay was reached at approximately 1.6 to 1.8 meters below the surface.

In addition to the work conducted on the fort of Agios Donatos, the neighbouring fort of Kioteza was also studied in 2006. The work involved clearing away the obsuring thick, prickly vegetation on the wall-line by the workers of the Ephorate, while studying and making a detailed total station map of the exposed remains was done by the survey members.

All photographs used in this paper were taken by me, except when otherwise stated. The three large maps are drawn by me on the basis of a 1:250 000 Road Editions map of Epirus. The maps of the fortress and its details are drawn by Dr. Jari Okkonen and his family, based on their total station measurements on site.

1.2. Aims of the study

The purpose of this study is to answer the following questions: First and foremost there is the dating of the fortress. There are only scanty remains of the fort standing today, consisting of ruined curtain walls along the southern slope, while a rectangular tower and two gates can be seen on the eastern side. All the remains are in a badly ruined state, with only short stretches of walls standing. How is it possible to date the walls visible today, and how

accurately can the result be determined? Archaeological investigation has yielded only limited amount of usable information in this respect, as most of the finds do not seem to be connected with the building of the fortress but rather with its later stages. Is it thus possible to determine the age of the walls at all using only indirect evidence such as stylistic comparisons and typology?

The second question concerns the function of the fortified site: Is it possible to determine the cause of building this monumental structure? Why go through the trouble of building the massive walls seen on the site today; what is the function of these fortifications, especially with other fortifications in the close proximity, all of them occupying considerably better sites in defensive sense? What purpose Agios Donatos' walls serve, being located in the low place they are found?

Finally, the third aim of this study is simply to increase the general knowledge of this hitherto unknown site, which has never before received archaeological attention. Any new piece of information is welcome to fill this vacuum. This study will also form a basis to an article on the fortification walls of Agios Donatos, to be published in the forthcoming monograph on Thesprotia in the series *Papers and Monographs of the Finnish Institute at Athens.*

In addition to the study of Agios Donatos there will be an Appendix listing the known fortified sites in Thesprotia. Some of them I have visited personally, and it is possible to give a short evaluation of the site. Some listed sites are known only from written sources, in other words I have not visited them personally. I shall however try to gather the information of the sites in a short evaluation of each site, if possible.

1.3. Methodology

Unfortunately the archaeological investigation in 2005 and 2006 could not help in determining the actual building date of the fortress, as most of the finds recovered were of a considerably later date. All the excavated areas seemed to consist of collapsed material with nothing much *in situ*. The few clearly earlier finds were mixed in with the later material, thus giving no clear picture of the construction phase or early stages of the site. Most of the archaeological material is obviously not analyzed by the time this thesis is written: It has been possible to date only four coins and a fragment of a lamp in such a short notice. Thus the archaeological part of this thesis, concerning the actual finds, will only be a tentative one.

Currently there is only a limited amount of hard evidence available to date the fortifications with. The only possibility is to study the masonry used in the walls as well as certain features in the design of the fortress. These are then compared with known parallels in the Greek world, preferably within as close range as possible. In describing the masonry I am using the terms created by R.L. Scranton for his study on Greek walls in 1941. His study is the basis for all the later studies, and many of his interpretations have stood the test of time.

A chronology of Greek masonry styles based on the shape blocks has been created and refined from the 1940's onward. In short, the blocks are divided into two different categories depending on the shape of their vertical *facing* sides. Their shape can be either *quadrilateral*, consisting of four sides or *multilateral,* with more than four sides. The quadrilaterals are further divided into *ashlar* and *trapezoidal* blocks. Ashlar is the basic quadrilateral form with each of the opposite sides of the block parallel and at right angles to each other. Trapezoidal, on the other hand, resembles the ashlar block but in most cases the vertical sides are aslant and only the horizontal sides parallel, giving the name of the style. Multilateral forms consist of *polygonal* blocks with more than four sides meeting in sharply defined angles, or of a

peculiar Archaic *Lesbian masonry* with strongly curving joints, but the latter needs not interest us at the moment. (Scranton 1941: 16-17.)

Whereas quadrilateral blocks form clear masonry courses in the wall, polygonal masonry forms a complicated network of joint lines. A later development of polygonal was the *coursed polygonal*, in which the blocks are less irregularly shaped and laid in well defined courses. “Normal” polygonal and coursed polygonal can be found in the same enceintes. The surface treatment of the block faces varied with the time and masonry style, ranging from the flattened, smooth *tooled face* to the rough *quarry face* or even a consciously roughened *hammer face*. The two latter ones have the face of the block left untrimmed and even bulging in the middle. In the polygonal work the surface treatment is practically always the quarry face. (Scranton 1941: 45-47, 52-54.)

Besides the shape of blocks themselves, the joint lines between the blocks in the polygonal masonry are taken into account . For the description of joints I am using the terms developed by K. Randsborg in 2002 as a part of his categorization of the fortifications on the island of Kephallénia.

Joint lines can be “falling”, i.e. forming a strongly curved shapes in joints with no clear coursing of blocks, resulting in a “compact polygonal wall”. If the masonry is more regular, consisting of nearly horizontal courses it is described as number of “accomplished courses”. Finally, if the blocks used are of nearly quadrangular shape, they are described as “quadrangular polygonal”. (Randsborg 2002: 208-209.)

In addition to the masonry styles, some features in the planning of a fortification can yield information about the time of its construction. Fortifications were built to protect the area within while siege machinery was developed to breach them. At least from the late fifth century onward there was a constant and ever increasing competition between different and more efficient siege methods versus more durable and protective fortification

features. These features are critical to the dating, and some features can be dated fairly accurately.

Undermining the walls, hacking through the wooden gate and climbing over the walls using scaling ladders were the traditional means of taking a fortifed site, but using the normal heavy hoplite panoply in these circumstances was very risky and heavy casualities were to be expected. In other words in the early stages, i.e. before the late fifth century B.C., fortified sites were not preferred to be taken by storm due to the high risks involved. Rather it was preferred to encircle the entire fortress by circumvallation and simply starve out the defenders, a slow but less risky method - provided that the besieger could be sufficiently supplied. (Kern 1999: 12-20, 107, 114.)

It was not until the Peloponnesian War that the Greek warfare changed into a more determined, strategic one, with both the will and the ways to capture fortified enclosures. It now became important to control certain strategic points, and the capture of such became paramount. A new feature was also the introduction of a pure defensive fortress without a city. In addition to the better logistics enabling even long lasting sieges, new and more efficient methods of storming the fortifications were adapted from the east. Battering rams and high, movable siege towers had been a common feature in the Near Eastern wars from at least the tenth century onward, but they were only adapted into Greek world during the closing decades of the fifth century, especially in Sicily where the wars against the Carthaginians introduced the near eastern know-how to the Greek world. (Kern 1999: 93, 97; Winter 1971a: 303.)

The greatest invention in the field of siege technology was reached in 399 in Syracuse, when the first catapults were introduced. At first they were purely anti-personnel weapons reminiscent of a large crossbow; such arrow-shooters could not damage walls in any way. In the mid-fourth century a more powerful, torsion-powered catapult was developed, most likely in Macedon under Philip II. Slightly later such powerful catapults were adapted to shoot stones, although small ones at first. The pace of development

increased rapidly. By the 330's the first stone-throwers capable of demolishing fortification walls had been introduced, and by the end of the century they had reached their maximum size, discharging standardized ammunition weighing up to 26 or even 78 kg. Such a shot could bring down all but the strongest fortifications from distances up to 170 meters. (Kern 1999: 177, 197-198, 237.)

The defenses had to adapt to the new siege methods. Higher curtain walls and towers had to be built in response to the introduction of longer scaling ladders and siege towers. Thicker, more durable walls and complicated gateways with multiple gates had to be developed to stand the assault of a battering ram and catapult bombardment. The threat of the new siege methods caused the fourh-century defenders to use flanking devices more systematically. Large towers and sawtooth walls were employed more frequently in order to protect the curtain walls from rams and siege towers. To protect the fighters posted on the curtains from catapult fire the battlements crowning the walls were built with a high continuous screenwall instead of older crenellated battlements. It did not take long, just a couple of decades after its invention when the catapult was also adapted as a defensive weapon. Special tower chambers housing the defensive catapults were built from mid-fourth century onward, and when the size of the machines grew the size of towers housing them did the same. The thickness of walls, both of curtains and towers, increased with the passing of time as ever more powerful artillery pieces were developed. Finally, by the time the large catapults capable of demolishing fortifications from a great distance with relative ease were adapted, the entire strategy of defense had to be re-thought. Instead of only closing the gates and passively waiting inside, ready to repel the assaults on the walls when they came, the defenders now had to try to disable the attackers' siege machinery with sudden sorties before the enemy could inflict any serious damage. Small postern gates had to be placed in different sectors of an enceinte to allow the sallies by the defending troops who had adopted the new, active defense strategy. (Winter 1971a: 305, 309-310, 319, 322-323.)

In the Greek world such a competition between siege and fortification technologies lasted until the last centuries B.C., by which time the new inventions on both sides had effectively played each other out. The end of the Hellenistic period saw no great advances in either siege- or fortification technologies. (Winter 1971a: 331.)

As seen before, when observed, certain features in the design of a fortress can be used to date it. Such a stylistic comparison of masonry styles and certain features in the general layout of a fortified enclosure is a relatively untrustworthy and coarse method of dating, even with plenty of parallels. These features alone would not be sufficient basis for dating. Thus in addition to the stylistic part, one has to look at the historical sources to get as much information of the area's historical developments as possible. Epirus was a peripheral area, and inland Epirus even more so. At first the inhabitants were regarded by the Greek geographers and historians of the period as if not quite barbarian, not quite Greek either. However, there are some sources that do shed light on the conditions in the area and thus give general some guidelines for dating. If combined succesfully, the dating achieved with the help of typologies and certain key features can be justified historically.

1.4. Earlier research

1.4.1. Research of Greek fortifications

The method of dating walls stylistically began initially as an M.A. thesis by an American scholar Robert Lorenz Scranton in 1941. In his study *Greek Walls,* he devised a method which was based on studying the shapes of blocks used in the masonry. Later, in the 1960's and 70's F. E. Winter and A. W. Lawrence continued Scranton's studies on the Greek fortifications and refined the research and chronology on the subject. Their works studied a number of sites all around the Greek world and beyond, from Sicily to Levant, but Epirus has mostly been neglected. Together, under a course of

a couple of decades these scholars created and refined a chronology of the Greek fortification walls, based on the form of the blocks.

Scranton had only limited knowledge and methods of dating at his disposal when he devised his chronology in 1941, according to which the polygonal walls are earlier than trapezoidal or ashlar. He suggested that the origins of polygonal masonry were to be found in the early fifth century B.C. and that the style reached its peak by the end of that century, then being gradually replaced with trapezoidal and ashlar walls. Such regular masonry styles steadily gained popularity from the last quarter of the fifth century B.C. onward, so that by the first quarter of the fourth century B.C. polygonal had been phased out. In the Peloponnese the polygonal masonry seemed to enjoy a brief renaissance from the mid fourth to the early third centuries B.C., but otherwise according to this chronology trapezoidal and ashlar masonry is more advanced than polygonal. In a few instances polygonal could still be used even in the Hellenistic period. (Scranton 1941: 55, 68, 85-98,112, 138-141.)

In the 1960's when F. E. Winter compiled his major work on the subject, *Greek Fortifications,* published in 1971, he had more dating evidence at his disposal. He revised some of Scranton's ideas but agreed on most of earlier suggestions. His chronology is by far similar to Scranton's, with polygonal masonry being popular in the period 480–400 B.C. and declining in popularity after that. In the Peloponnese a *coursed* variant of the polygonal masonry became popular in the second half of the fourth century B.C. Polygonal walls built after the first quarter of the fourth century elsewhere in the Greek world are often consciously archaizing. Coursed trapezoidal was the preferred building style of the late fifth and the early fourth centuries, whereas ashlar became steadily more popular throughout the fourth century, becoming the dominant style by the Hellenistic period. Trapezoidal *pseudo-isodomic* masonry in which the courses of varying heights alternate, was the other favourite of the Hellenistic era. Winter suggested that the dating of polygonal masonry as well as *irregular ashlar* and *irregular trapezoidal* styles should be revised downward, and that different masonry styles within the

one and the same circuit could indicate different workshops or groups of masons rather than difference in building time. Still the basic idea was that polygonal steadily lost ground to more regular masorny styles. (Winter 1971a: 81-83, 90.)

Scranton and Winter had a very limited knowledge on Epirus, however. It is not surprising as by the time they wrote their studies, research in the area had been very scarce. This changed in 1967 when N. G. L. Hammond published his research of the area, *Epirus. The geography, the ancient remains, the history and the topography of Epirus and adjacent areas.* Therein he suggested that in Epirus ashlar walls are actually *earlier* than polygonal, most of which can be dated to late fourth and third centuries B.C. (Hammond 1967: 711-716.)

Winter admitted in an appendix to his chapter on masonry styles, written after Hammond's publication date, that in northwestern Greece polygonal did stay in vogue much longer than had been anticipated earlier. In Epirus the fortifications surrounding the earliest native towns belong mostly to the Hellenistic period, and there the polygonal masonry was popular. He did not accept Hammond's theory completely, but admitted that small enceintes of Hellenistic date could be built entirely in the polygonal masonry. (Winter 1971a: 95, 98-100.)

In the early 1990's a Swedish scholar, Lars Karlsson published his doctoral thesis on the fortification towers and masonry techniques found in Sicily, spanning the time from the fifth down to the late third century B.C. Of special interest to him were the so called *emplekton* masonry and the existence of *masonry chains* forming *compartmented walls*, found especially in the ashlar walls. According to Karlsson the emplekton or *intertwined* masonry, with crosswise header blocks binding the wall faces to the core, started appearing under Epaminondas' time in the early 4th century. It was named after the "weaved" appearance given by the header and stretcher blocks altenating in the facing of a wall. With time it evolved into masonry chains with the headers placed at certain intervals, mostly some ten Greek feet or

approximately three meters throughout the walls, forming crosswalls and thus compartmentalizing the fill. The idea was to limit the collapse in case of a breakthrough - a real threat after the introduction of ram and heavy artillery pieces. Polygonal walls might occasionally also have masonry chains, although less frequently than ashlar walls, as polygonal masonry is more durable against blows due to its complicated, undulating joint patterns. Karlsson also dealt shortly with some Epirote sites such as Gitane and Raveni, focusing in their towers with internal reinforcing crosswalls. The reign of King Pyrrhos of Epirus was also influential in the Sicilian fortification history, with influences spreading from Epirus into Sicily. (Karlsson 1992: 61-62, 68-74, 83, 107-111.)

The latest attempt to determine the date of fortifications based on the masonry styles is by the Danish Kephallénia Survey in the 1990's. The project under the supervision of Klavs Randsborg devised a typology of all the fortifications found on the island of Kephallénia. Polygonal, trapezoidal and ashlar as well as rubble walls found on the island were divided into 27 distinct categories based on the shape, surface treatment, fitting and size of blocks. The number of preserved courses was also recorded. Joint lines between the blocks were also characterized; this had not been done earlier. The typology divided polygonal walls into fourteen different categories, and the dating of all the wall types was based on parallels from elsewhere in the Greek world. (Randsborg 2002: 208-209, 214.)

1.4.2. Earlier research of Agios Donatos

Before the present project, Agios Donatos had never received actual archaeological attention in form of an excavation or other detailed study. It had been noted by two authors writing about the archaeology of Epirus in general, but these mentions are only short and not particularly accurate.

Nicholas Geoffrey Lemprière Hammond (1907-2001), the former headmaster and professor of Greek in the Bristol University, explored the

whole extent of the ancient Epirus in the 1930's. It took him fourteen months of travelling by foot in Greece and Albania, all the while making notes of Epirote fortresses and other archaeological sites. Combining his field notes with his extensive knowledge of ancient history he published in 1967 his major monograph on the subject, *Epirus. The geography, the ancient remains, the history and the topography of Epirus and adjacent areas.*

Hammond calls the villages, rivers and other topographical features by their older names and describes the distances in walking time, including the sites in the Kokytos valley. He describes three fortresses in the valley: Agios Donatos, Elea and Paramythia. His description of the fortress of Agios Donatos takes only two thirds of a page, giving a broad picture of the site and the remains. No excavation was involved in Hammond's examination of the site, only superficial inspection of features. The measurements are not particularly accurate, and some features are not measured at all. According to Hammond the fortifications include a 2,50 m thick, approximately 500 m long curtain wall, built of two faces of large polygonal limestone blocks along the southern slope of the ridge and still standing up to five courses high in places. In addition there are two right-angle turns of direction in the wall as well as two towers on the north-eastern side. A possible cross-wall, one meter thick and built of two faces of limestone blocks dividing the acropolis in east-west dircetion is also described. All corners of the wall are drafted, with deep recessing. (Hammond 1967: 71.)

The other description is by the Greek archaeologist, Sotirios Dakaris, who mentioned the site in his 1972 volume Θεσπρωτία. He calls the fort Zervochori after the closest village and the description is a short one, mainly quoting Hammond. According to Dakaris the fortifications cover an area of approximately 1,2 hectares, surrounded by a polygonal wall approximately 500 meters long. The fortress has two rectangular towers, two right-angle turns of direction in the curtain walls and a gate on the eastern side. A possible cross-wall dividing the fortress into eastern and western halves is also mentioned. Dakaris also reports that an Ambrakian copper coin, dated between 238-168 B.C., had at some stage been found from within the

fortress or vicinity. (Dakaris 1972: 138-139.) The same coin is possibly also mentioned by Hammond, although he mentions it being found in the village. It is also possible that he meant that the coin had been found within the *grounds* of the village, which also includes the fortress. (Hammond 1967: 717)

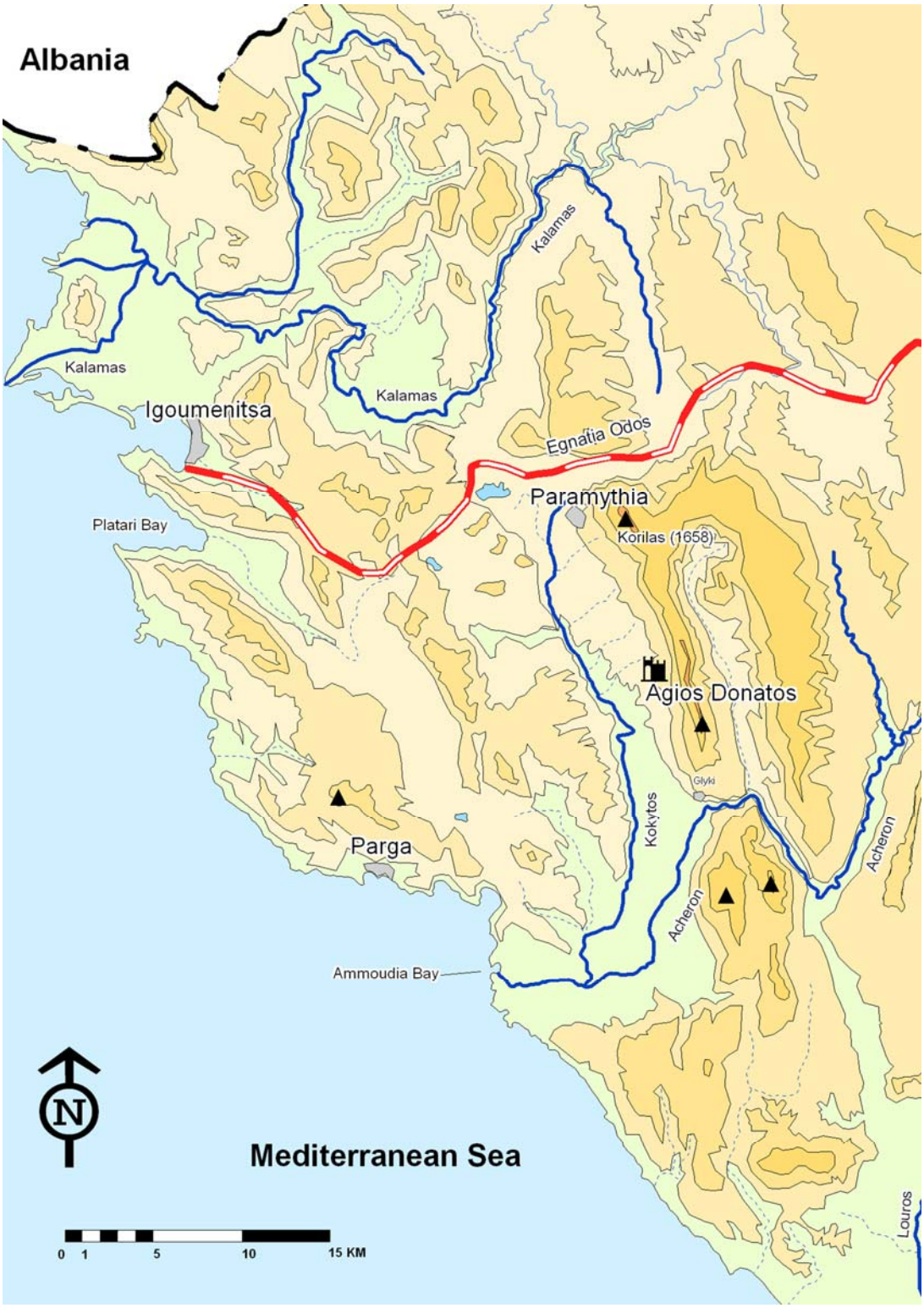
2. Geographical and historical context

2.1. Geographical setting

Agios Donatos is situated in the municipality of Paramythia which along with its southern neighbouring municipality of Acheronta constitutes the Kokytos river valley. The river runs roughly from north to south, having its source to the northwest of Paramythia. After running some 20 kilometers southwards it confluences with the river Acheron near the modern village of Mesopotamos. From there the Acheron runs into the sea in Phanari Bay at Ammoudhia, some four kilometers westwards (Map 1).

The western neighbouring municipality is that of Margariti a couple of kilometers away, while the eastern neighbour is the municipality of Souli, starting from the nearby Paramythias mountain range. Approximately ten kilometers northwest of Paramyhia the ground drops steeply down to the valley of river Kalamas, which is also the border of the next municipality, Parapotamos. All of the abovementioned municipalities form the prefecture of Thesprotia, whose southern neighbour is the prefecture of Preveza starting on the southern shore of Acheron.

The fortress occupies a low ridge on the western foothills of Paramythias mountain range, approximately 1.8 kilometers south of the modern village of Zervochori and some two kilometers east of the modern main road form Glyki to Paramythia. The largest modern settlement in the area is Paramythia, approximately 9.4 kilometers north-northeast of the fortress site, and the first modern settlement to the south is the village of Agora some 2.5 kilometers to the south-southwest.



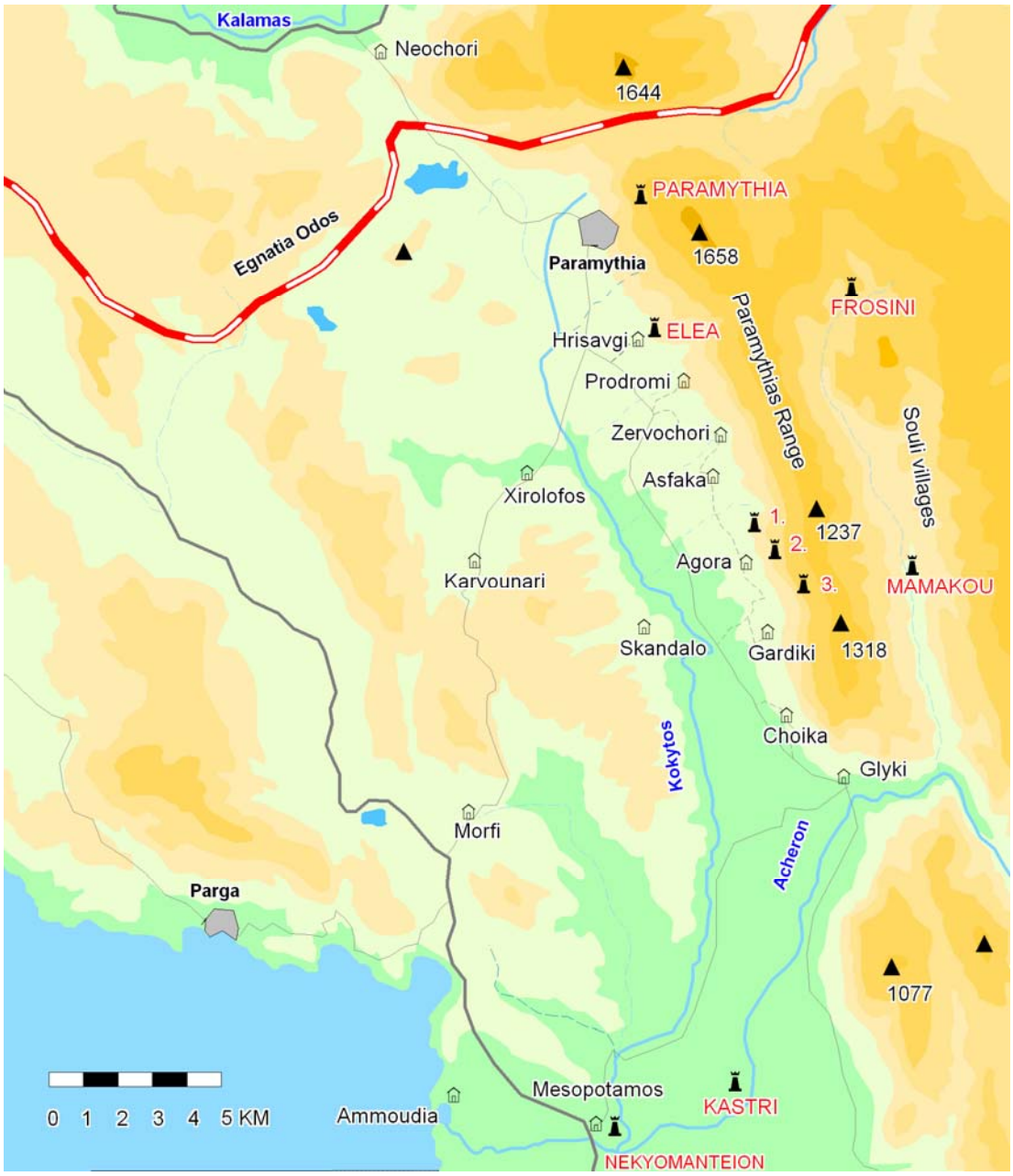
Map 1. Agios Donatos in relation to the major modern towns (Igoumenitsa and Parga) and the new Egnatia Odos in south-western Epirus.

The ridge upon which the fortress (Fig. 1) stands is an oblong limestone outcrop with steep cliffs on its northern side. The ridge is oriented roughly from north-northeast to south-southwest. It is connected to the high

Paramythias mountain range by a saddle at its eastern edge. The highest point of the fortified area, near the eastern edge is some 239 meters above sea level, while the lowest point of the fortified area in the western edge is at 198 masl. The height of the Kokytos valley floor nearby, on the other hand, varies between 100 to 130 meters. To the east of the fortress the ground rises steeply. The 260-meter contour line passes at closest only 165 meters east of the site, and the 300-meter contour is only 250 meters distant in the east-southeast. The next higher peak of the foothills is a nameless ridge, 261 meters high located at some 285 meters to the south-southeast. The mountains themselves reach heights of approximately 1000 to 1200 meters, with a high pass to the next valley east, Souli approximately two kilometers south of the fort (Map 2).

Fig. 1. The fortress of Agios Donatos and its surroundings seen from the south. Photo by E. Tikkala.

The northern side of the ridge consists of precipitous cliffs, with an approximate height of 40 meters. The cliff formation continues running in the southwesterly direction even after the end of fortified area. There the ground consists of jaggedly weathered bedrock making it difficult to approach the site from that direction. The southern hillside is far less steep, while in the east where the saddle is the ground is virtually flat for approximately one hundred meters before ascending to the beforementioned hills.



Map 2. Detail map of the Kokytos valley and its surroundings. Principal modern villages are marked by house symbols while the fortifications are marked by towers. The names of the forts (in red) are the names by which they are known today. The numbered forts refer to:

1: Agios Donatos
2: Kioteza
3: Gardhiki

There are also other fortifications in the Kokytos valley (See Map 2 and Appendix). Just above the modern village of Paramythia there is a large fortress known as *Castle of Paramythia*. The fortress has traces of ancient

polygonal walling in places, but most of the structures seen are of a considerably later date as the site was used down to the early 19th century A.D. The fortification walls cover the less steep sides of the fort, whereas the high cliffs on the northern side do not require walls. The next fortified enclosure southwards is the ancient city of *Elea*, some 5 kilometers north of Agios Donatos. A formidable polygonal wall with a large corner tower protects the eastern side where the approach to the city is practically flat. In addition there are short stretches of walling around the perimeter wherever the natural defenses formed by vertical cliffs are deemed inadequate. The highest cliff faces in the perimeter do remain unwalled.

Some 970 meters south-southeast of Agios Donatos there is the fort of *Kioteza*. It is situated on a high, mesa-like rock pillar with very high vertical cliffs protecting most of the site. The fort is extremely badly destroyed, but it would seem that there were polygonal walls in the north-eastern and southern sides where the approaches are less steep. The sheer cliffs on the other sides require no additional walls for protection. The highest point of the fort affords unhindered views all across the valley, and all the other forts are in plain view. Fittingly, the name of the fort is a corruption of the Albanian word *kiorteza*, meaning look-out (Forsén 2006a). The fortress was studied in detail by the Thesprotia Expedition in the summer of 2006.

The fortifications of Agios Donatos thus occupy quite a typical site in the area, utilizing the protection of the natural cliffs as much as possible. All the fortress sites in the valley have used the same principles in their planning; constructing walls to block the entry from easily approached sides while the sectors with high, vertical cliff faces have been left unwalled.

2.2. Historical background

Thesprotia and Epirus in general were on the fringes of the ancient Greek world. The original inhabitants of the area were nomadic herdsmen whose social structure was based on tribes and transhumance between summer

and winter pastures. The most important Epirote tribes consisted of Molossoi, Thesprotoi and Chaones, who ruled territories in the eastern, southwestern and northwestern parts of Epirus respectively. In modern geographical terms the Molossoi and Thesprotoi inhabited roughly the area in the modern northwestern Greece, whereas the Chaones ruled roughly the area which in modern terms corresponds to the southern part of Albania. (Hammond 1967:464; Sakellariou 1997: 30.)

In antiquity the Kokytos valley belonged in the region of Elaeatis of Thesprotis, which is first mentioned by Hecataeus in the sixth century B.C. Elaeatis derived its name (literally, olive-land) from olive, and the area has indeed been known from its olive groves down to modern times. The northern border of Elaeatis ran along the river Thyamis, modern Kalamas. In the south the territory bordered in the river Acheron and its ancient continuations westwards, the Acherousian Lake and Glykys Limen where the Eleaei had their port. (Hammond 1967: 478, 548.) These toponyms have been studied and proven to having existed in the lower Acheron valley. Glykys Limen, “Sweet Harbour”, has been silted in almost completely today so that the only remains of this once relatively large gulf are visible in the modern Ammoudia or Phanari Bay. Acherousian Lake, slightly inland from the Glykys Limen on the lower Acheron plain was also silted badly until its last swampy vestiges were dried for farmland in the years following the First World War. (Besonen 2002: 202, 234.)

Thesprotia, the area of the tribe of Thesprotoi consisted of three major areas in southern Epirus: Elaeatis, Elinia and Parakalamas. Elaeatis being already described, the others were Elinia, which consisted of the next valley westwards, in modern toponyms Margariti, the area of Mazarakia and the coastal areas south of Platari Bay, while Parakalamas consisted of the lower course of river Kalamas and its delta. By the fourth century B.C. the major urban centres in these areas had begun forming in Elea, Elina (modern Dhimokastro) and Gitane respectively. (Sakellariou 1997: 20.)

Urban development was slower in Epirus than in Greece proper. The first actual cities in Epirus were founded by settlers from the south. According to Strabo 10.2.8., by 625 B.C. the Corinthian settlers had moved up the coast, reaching the Ambrakian Gulf and founding the colony of Ambrakia on the river Arachthus. (Hammond 1967: 425). The other pioneer colonies, Bouchetion, Elatria and Pandosia, all south of the Kokytos valley, were founded by settlers from Elis during the period between ca. 700 down to the 6th century B.C.

Among the native Epirotes the urbanization was considerably slower. Pseudo-Skylax, a Corinthian author writing between 338-335, used earlier works on his geographical description of southern Epirus. Later dated to around the period of 380–360, the section (§ 30-§ 32) describes that at this time the Chaonians, Molossians, Cassopaioi and the Thesprotoi all "*lived by villages*"; in other words no greater fortified settlements or cities had been formed by then. Down to at least the early fourth century B.C. the Epirote economy was primitive and self-sufficient, based on tribes, nomadism and transhumance rather than international trade. The internal division was based on ownership of pastures and tribal divisions rather than exact borders. The Greeks at this stage considered Thesprotians and the like as being not as barbarians like the Illyrians, although not yet Greeks either, for Greece was considered to begin from Ambrakia southwards. (Hammond 1967: 425-427, 511-521, 553; Sakellariou 1997: 19, 54, 63.)

As Epirus is extremely mountainous it is divided into hundreds of valleys, a few of which became the major transport arteries from the coast into inland and on to Macedonia, over the Pindus range. In addition to flocks traveling between different seasons' pastures, all merchandise as well as armies, both allied and hostile, traveled along these river valleys, three major ones in southern Epirus being the Arachthus, the Louros and the Kalamas. All the major routes have a dense system of fortified sites protecting them, especially on the area controlled by the neighbouring tribe, the Molossians. A network of fortified strongpoints enabled the defense in depth, particularly toward the south and the west. (Sakellariou 1997: 19, 30-31.)

The Illyrians to the north of Epirus constituted a formidable threat during the fourth century B.C. King Bardyllis had by then forged an Illyrian state through the union of different tribes, and at this stage they began to spread southwards on the expense of the Chaones. In order to widthstand the Illyrian threat the Macedonians as well as Epirotes had to organise themselves better and step out of their isolation. The major power in Epirus was the Molossian state, born through the union of ten tribes, both Molossian and Thesprotian. The Molossian state fought against the Illyrians, suffering huge losses. The situation was saved in 384 by Sparta, who sent help to Molossoi to drive the Illyrians back. In 375 Iason of Pherae conquered Thessaly and placed a friendly client king, the once exiled Molossian king Alketas, to rule over the Epirotes. Another Illyrian invasion in 360 was checked by Philip II of Macedon, who forced the Illyrians out of Molossia. Macedonian intervention on the Epirote affairs continued in 350 and 343/2, when Arybbas, the then king of Molossians was first defeated and, during the latter war driven into exile by Philip II. At the same time Pandosia, Bouchetion and Elatria, the colonies of Elis were seized by the Macedonians and later given to the Molossoi. A new pro-Macedonian king, Alexander the Molossian was placed at the throne. (Hammond 1967: 531-534.)

He went on to fight in Italy, where he met his untimely end in 331. The royal house was discredited and the Molossian state was absorbed into a larger unit, the Epirote Alliance or *Apeirotai* between 331 and 325. Nevertheless, the Molossian state with its king continued to exist within the Epirote alliance. By this time the urbanization had finally begun in southern Epirus, gaining impetus from overseas experiences of the Epirote soldiers. By gaining the three former Elean colonies after 342, the Molossians also received an advantageous seaboard on the Ambrakian Gulf, boosting trade and cultural influences. (Hammond 1967: 537-539, 557; Sakellariou 1997: 83.) The harbor of Eleatis in the Acheron delta was another important port in this region where not many ports existed at the time.

The Molossian kingship changed hands several times in the turbulent years following the death of Alexander the Great. The internal strife in Macedonia also affected the Epirotes, who were even under the Macedonian control for some time. In the end, the kingship ended up into the hands of a 12-year-old prince Pyrrhus who was called home from exile in the court of the Illyrians. He was soon exiled again, first to Athens from where he was sent into the court of the Ptolemies as a hostage. Finally in 297 B.C. Pyrrhus, with the help of the Ptolemies, was able to recover his throne, soon getting rid of his co-regent and usurper Neoptolemos II.

King Pyrrhus' time saw the flowering of Epirus. Under his rule the borders were greatly expanded, to include even the island of Kerkyra and her mighty fleet at times, so that by 277 the Great Epirus of Pyrrhus stretched from Epidamnos in the north to the Corinthian Gulf in the south, covering ca. 20 000 km² and some half a million inhabitants. Ambrakia in the south was chosen as the capital, and a fervent building activity of public buildings as well as fortresses ensued all over the kingdom. New foundations were laid and existing fortifications overhauled. The new kind of warfare involved fortifications, even building of fortified march camps while on campaign. For this attention to fortification building and pitching marching camps while on campaign Pyrrhus was indeed famous. (Hammond 1967: 572.)

Pyrrhus got involved in the struggle for the Macedonian throne, even acquiring it for a short while in 288 but soon lost it again. After that he went on to fight in Italy for six years and shortly after returning to Greece went on campaining in the Peloponnese. While besieging Argos in 272 he was killed. (Sakellariou 1997: 62-77.)

His successor Alexander II was still capable of keeping the borders of Great Epirus intact and the kingdom prosperous, repelling the Illyrian attempts to recover some lost ground in the north. He was also able to settle peace terms with the Macedonians, some of whose areas had previously been annexed into Epirus. But a new threat, the Aetolian Confederacy, loomed in the south. At first they were in good terms with the Epirotes. Both the

Epirotes and the Aetolians even gained some areas on the expense of the former Akarnanian League, which was forcibly divided between the two at some stage around 243. With the death of Alexander II in ca. 240 B.C., the ruling Aiakid dynasty of Epirus started its decline. The following kings' reigns were short and plagued by difficulties with the neighboring states. Finally the whole dynasty became to end in 232. That year Ambrakia rebelled and there was unrest in the north among the Chaones. The Aetolians started a war in the south, trying to capture the Epirote part of Akarnania.

With the end of the Aiakid dynasty, the Epirotes formed a federal republican state, the *Koinon of the Epirotes* in 232. By then the southern part of Epirus had been greatly reduced. Akarnania, Ambrakia and its surroundings, Amphilochia and even Cassopaia had broken away and become independent. In the north the Illyrians under Agron had again become a strong threat, reducing northern Epirote areas in their turn. Even the Romans came to the stage at this point, being provoked by the Illyrian piracy in the Adriatic. The Roman intervention led to them conquering Kerkyra and gaining a foothold on the mainland by obtaining Apollonia in northern Epirus. To repel the Illyrian threat the Epirotes had at first sought an alliance with their enemy the Aetolians, but soon switched their alliance to the Illyrians, against the Aetolians. As a result the Epirotes lost the support of both, then seeking aid from Macedonia. They finally ended up becoming allied with the Hellenic League, which had been founded by Antigonos Doson of Macedon in 223 B.C. Two years later the Aetolians plundered the coasts of Epirus which, together with other outrages led to the Hellenic League under the young Philip V of Macedon to declare war on the Aetolians in 220. The ensuing Social War saw Aetolian troops plundering Epirus and even sacking the oracle site of Dodona in 219. Two years later, in 217, the Aetolians again ravaged the whole of Epirus. (Hammond 1967: 588-606; Sakellariou 1997: 79-81.)

Due to the threatening situation on the borders, with large armies on the move ravaging the countryside and cities, the time of the Koinon saw another peak in the fortification building activity. Still more sites were being

fortified, resulting in fortress chains along the edges of river valleys, in places with difficult access. People began moving to the close proximity of fortified cities, even from more remote areas. In times of danger the countryside was abandoned as people retreated behind walls. Despite the worsening situation and occasional large scale plundering Epirus still remained relatively wealthy, thanks to the international trade and her position between Greece and Rome. (Sakellariou 1997: 101-103.)

A renewed Illyrian attempt under Demetrius of Pharos challenged the Roman might in northern Epirus in 219, but by then Rome had her hands full in the Second Punic War which limited her involvement in Greek affairs. Encouraged by Hannibal's early successes Philip V of Macedon and his Greek allies, among them Epirotes, allied with Hannibal in 215 and attacked the Roman holdings in southern Illyria. Rome had been allied with the Aetolians, supporting them so that the Aetolians could keep on fighting for years to come. The war went on slowly, with no great, lasting gains on either side. By 206 the Aetolians were finally exhausted despite the Roman support, and sued for peace. The Epirotes were able to arrange a conference between Romans and Macedonians in Phoenice in the following summer, resulting in peace for now. Five years on, the Romans and the Macedonians with their allies were at war again. This time the Epirotes, although allied with the Macedonians, refrained from action against the Romans. (Hammond 1967: 608-619.)

After the Macedonian defeat in Cynoskephalae in 197 the Romans sought the good will of Epirotes by entering into an alliance with them. A new period of prosperity, thanks to the overseas trade ensued for the Epirotes. When the Second Macedonian War broke out the pro-Roman party in Epirus managed to prevent the war from being waged in Chaonian territory. The Epirotes in fact helped the Romans, allowing them access through the Epirote areas in 192. A generation later the Macedonians and the Romans fought again, in the Third Macedonian War of 172-168. The relations between the two states had been deteriorating constantly, aided by the Greek states filing complaint after complaint to the Roman senate of their

treatment by the Macedonians, and the revitalization of the Illyrian piracy in the Adriatic. The Illyrian king Genthios of Skodra wanted to shake off the Roman yoke with the help of the Macedonians. In the early stages of the war the Epirotes stayed on the Roman side, allowing them access through the Drilon valley and sending troops to aid them.

The turn came in 170. Previous year the Romans had suffered a defeat, and the general ineffectiveness of Romans in achieving a victory at this stage gave some Epirotes the incentive to start thinking of joining the Macedonian cause instead. The unity of the Epirotes broke down between the spring and winter of 170, as the pro-Macedonian and pro-Roman parties in different parts of Epirus gained the upper hand. The eastern part of Epirus was overrun by the Macedonians, who installed their own garrisons on the Pindus range. Meanwhile, north-western Epirus was given to the Romans by the pro-Roman party under Charops the younger. As a result, Epirus was split into two states and the Epirote League ceased to exist. The Molossians had been pro-Macedonian, and now also Thesprotians joined in. Chaonia, on the other hand remained loyal to the Romans. In 169 the Romans were besieging Phanote, a city on the Kalamas in Thesprotia, but were defeated by the Macedonian garrison defending it. (Sakellariou 1997: 114-115.)

Despite the losses, the Romans were able to gain the upper hand in 168. First the Illyrians were crushed and finally in June of that year Perseus was defeated in the battle of Pydna by Aemilius Paullus. The Roman victory led to Epirus being also occupied by the Roman troops. Roman garrisons were installed in strategic places, and the legions wintered in Passaron in Molossia. The next year the peace terms were settled, and it seemed that Epirotes would get away relatively unscathed despite their treachery. Unknown to the Epirotes, the Roman senate had ordered the looting and sacking of those areas who had switched sides to the Macedonian cause. Every town was ordered to collect all their precious possessions to their agoras and to allow a Roman cohort to enter in order to gather them. This was carried out simultaneously all across Molossia and Thesprotia. On the fourth hour after the sunrise, the Roman cohorts started their unrestricted

pillaging. According to Polybius, some seventy *oppida* (cities, forts etc.) in Epirus were looted, their walls razed to the ground and the central Epirus was laid waste, as the Romans also took some 150 000 slaves. Molossia, Thesprotia and Cassopaia suffered the worst. (Sakellariou 1997: 115-116.)

3. Fortress

In the following pages the ruins of the fortress and its environs are described. The ruins consist of fragments of curtain walls, remains of at least two gates and one large tower. Fortfication walls cover the eastern edge and the southern slope, the sheer cliffs to the north do not need any additional safety measures. The size of the fortified area is approximately 1.1 hectares. The fortress measures some 290 meters in length, while its width varies between 40 and 140 meters. In the extreme western tip the southern wall and the cliff edge in the north are only a few meters apart (Fig. 2). Basically the builders of the fortress have just fenced off an area from one cliff face to another.

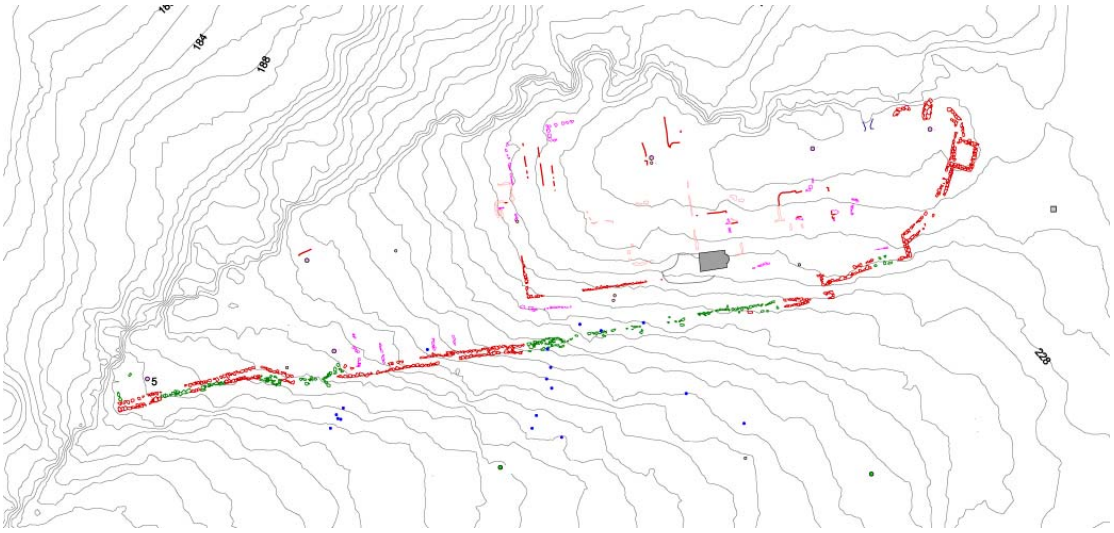


Fig. 2. The plan of the fortress. The preserved walls with stones *in situ* are drawn in red, while the less obvious stones are drawn in green. Detail of a total station map by Jari, Tuula and Aleksi Okkonen 2005.

Starting from the northeastern corner, on the edge of the cliff and the saddle, one first comes across the remains of the northeastern gate after which the wall runs in a convex course for approximately 20 meters, reaching the northern wall of the tower. To the south of the tower the wall resumes its convex course for an additional 40 meters until it changes to a saw-tooth trace running west-southwest. After two saw-tooth jogs, the latter of which is pierced by the southeastern gate, the wall runs west-southwestwards in a

straight line for a considerable length of approximately 200 meters. Then there is a very slight bend westwards for about 20 meters, after which the course changes again towards west-southwest for the last 50 meters, finally ending in the western corner where the cliffs run in the south-westerly direction. A small 17th century chapel of Agios Donatos, after which the fort has been named, stands on the southern hillside roughly one third across. The whole fortified ridge is extensively terraced, so that the southern side has three clear terraces, and the western hillside has four in different levels, although covered by a dense vegetation. Due to extraction of blocks for the walls and additional artificial leveling, the summit of the ridge near its eastern end is practically flat.

3.1. Gates

A typical gateway consisted of stone walls, a stone lintel or a corbel vault above the opening and a stone threshold on the ground. The lintel could also be made of wooden beams if it was not designed to bear a great load. The gate itself would have been built in a wooden frame with two upright timbers, *parastades,* supporting a crosswise *hypertonaion.* Depending on the width of the opening the gates were either one- or two-leaved with wooden leaves. If the gate was large one leaf could have had a small wicket, *ektomas* to allow restricted passage when the gates were shut. Actual hinges were never used but instead the gate leaves swung on bronze-plated wooden *pivots*, which turned in large *sockets* cut into the threshold block and lintel (Fig. 3). The threshold could be monolithic or it could consist of two separate footing slabs. The slabs are usually thicker than the rest of the pavement, and their upper sides might have cuttings for the timber uprights as well as the sockets for the pivots. The gate leaves always opened inward, and when they were locked a heavy crossbar was sild behind them to prevent them from opening. The crossbar was locked into specially cut squarish holes in the side walls and slid into them, out of way, when the gates were to be opened. (Lawrence 1979: 248; Winter 1971a: 255, 258-259.)

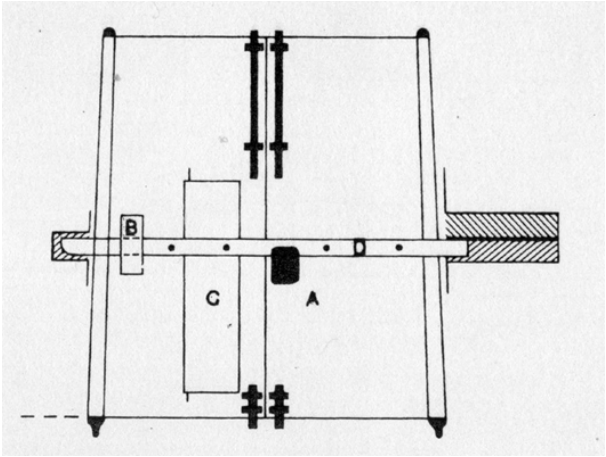


Fig. 3. A typical gate arrangement. The two leaves of the gate (A) swung on large, bronze-plated pivots set in holes. This drawing also has a wicket (C) and locking mechanism (B) with the bar holes (hatched areas) visible. (Winter 1971a: 258).

At Agios Donatos there are clear indications of at least two gates around the enceinte, one opening northwards near the north-eastern corner and the other opening in east-northeasterly direction at the south-eastern sector. The north-eastern gate has been almost completely destroyed, the only tangible evidence is an approximately five-meter stretch of walling in approximately north-south-direction, transversely to the course of the actual fortification wall (Fig. 4). This transverse wall is built of large polygonal blocks up to 1.66 x 0.9 x 0.9 meters in size, indeed the largest used in the whole enclosure. The sheer massiveness and the fine execution of such a wall running diagonally across the course of the wall here suggests that this wall once constituted the left side of a gate-corridor. Additional proof of such a hypothesis can be seen around the ridge. The badly weathered bedock rises to surface forming sharp, uneven ridges sticking out of the ground. However, for the entire stretch of the abovementioned wall the bedrock has been trimmed to form a corridor approximately two meters wide. The bedrock still rises to the surface in places, but it is seemingly less jagged than elsewhere. In line with the inner corner of the diagonal wall, on the other side of the corridor, the bedrock has been left higher and the upper surface seems to be trimmed flat, to receive the blocks of the wall. Finally, the large block forming the inner corner of the wall has traces of a drafted margin 6 to 8 cm wide in the corner. The rock used for building material is of relatively poor quality and liable to cracking, which results in the poor

visibility of such a drafting. Due to the poor state of preservation no structural details of the actual gate or its locking mechansim are visible in the wall or its surroundings.

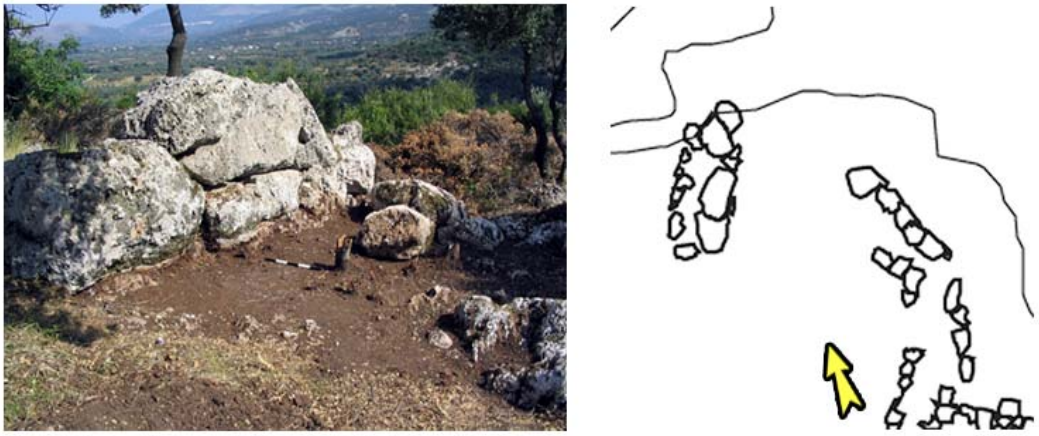


Fig. 4. The northeastern gate seen from inside of the fort, towards north (left). The measuring stick is placed in the gate corridor. Right, a detail of a total station map by Jari, Tuula and Aleksi Okkonen, 2005. The yellow arrow shows the point of view.

The south-eastern gateway is the better preserved of the two. It opens eastwards across the second sawtooth jog of the enceinte near its southwestern corner. This projecting wall is 4.4 meters wide and the gate corridor, 1.9 meters wide, is placed in the middle of the wall. The southern wall of the gate corridor forms also the inner wall of the southern curtain, also some 1.9 meters thick. The gate corridor is 2.4 meters long, determined by a large squarish block at its upper corner (Fig. 5).

Fig. 5. The southeastern gate seen from within the fort, looking east, during the excavation (left). Right, a detail of a total station map by Jari, Tuula and Aleksi Okkonen, 2005. The yellow arrow shows the point of view.

The curtain wall to the the east of the gateway bulges outward today, as the weight of the filling has pressed the upper blocks dangerously close to falling. Thus the plan shows the curtain running in a straight line from within the gate corner to the first jog of the indented trace. However, originally the northern wall of the gate corridor protruded 0.6 meters from the curtain, which can be seen when looking at the lower courses of the face. There is still a large block in situ with a drafted northeastern edge, defining the southern wall of the gate corridor. Only the eastern face of the block has a drafted corner some six centimeters wide, the corridor side of the block is smooth throughout.

A matching parallel for this kind of gate corner block, with drafting in only the façade and not on the corridor side is clearly visible at the so called Nekyomanteion of Ephyra, some 20 kilometers south of Agios Donatos (Fig. 6). At the southeastern corner of the central tower a complicated gateway has been added to protect the entrance. The outermost of complex's two doorways has an almost exactly similar block on the southern wall placed at approximately knee height.

Fig. 6. South-eastern gateway of Agios Donatos (left) and the gateway into the central tower of Nekyomanteion (right). Note the similarities between the blocks on the left hand side of the corridors.

When excavating the gate we were unable to find the threshold block or footing slabs. The bedrock in the gateway was left practically untrimmed and uneven with approximately half a meter difference in height between the northern and southern sides of the gate corridor. There was a cutting in the

bedrock close to the northern wall approximately 50 cm inward from the northeastern corner. The cutting measured some 50 cm wide by 10-20 cm deep, and it was most likely cut to receive the monolithic threshold block or one of the two separate slabs (Fig. 7).

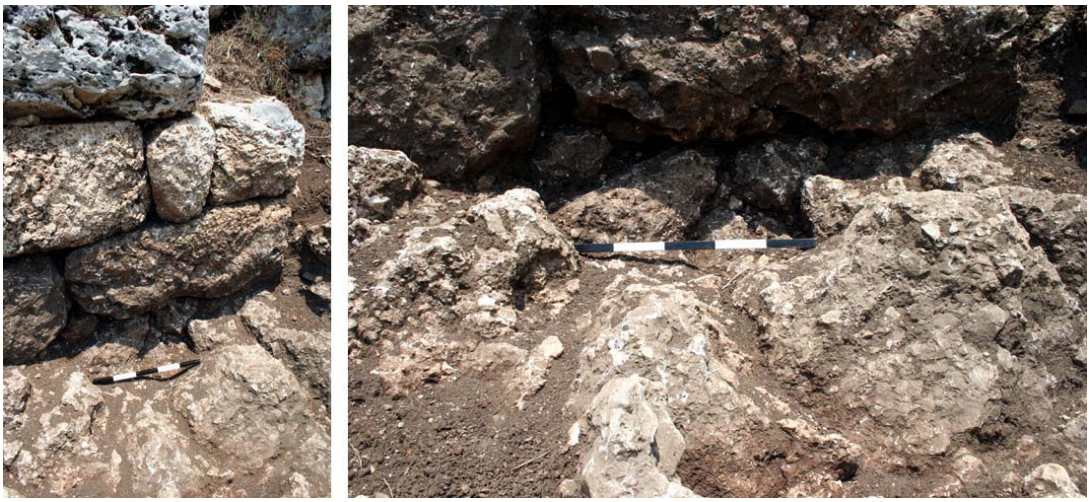


Fig. 7. Agios Donatos, southeastern gate. The cutting in the bedrock, most likely cut to receive the threshold block or one of the footing slabs for the timber gate-frame.

Monolithic threshold blocks are commonly found in doors of the buildings, and occasionally in larger openings such as gates. There is a good example of a monolithic threshold block at the northern gate of Kastro Rizovouni, ancient Batiae in Thesprotia (Fig. 8).

Fig. 8. Monolithic threshold block of a gateway in Kastro Rizovouni. The block has been removed from the northern gateway and is now lying some distance from the gate. The footings of the timber frame are well visible.

The gateway in question is approximately two meters wide, just like the gates in Agios Donatos. What is interesting about this block is that it has been removed from the gate at some stage and is now lying on the ground some distance from the gate. The block has cuttings of the timber uprights and part of it has been cut lower to stop the outward movement of the leaves when shut.

Thresholds could also be built using several blocks, with somewhat thicker blocks laid closest to the walls. Such footing slabs usually have sockets cut on their upper surfaces to receive the timber uprights of the gate frame as in monolithic thresholds. Behind the sockets there would have been the round holes for the pivots, on which the gate leaves turned. Occasionally the pivot holes can be squarish. Within the squarish hole a bronze pivot with a round hole on its upper surface would have been inserted. Such bronzes were also used in doorways of houses as well as gates. Blocks like this are clearly visible in the excavated Acropolis gate in New Halos in Thessaly (Fig. 9).

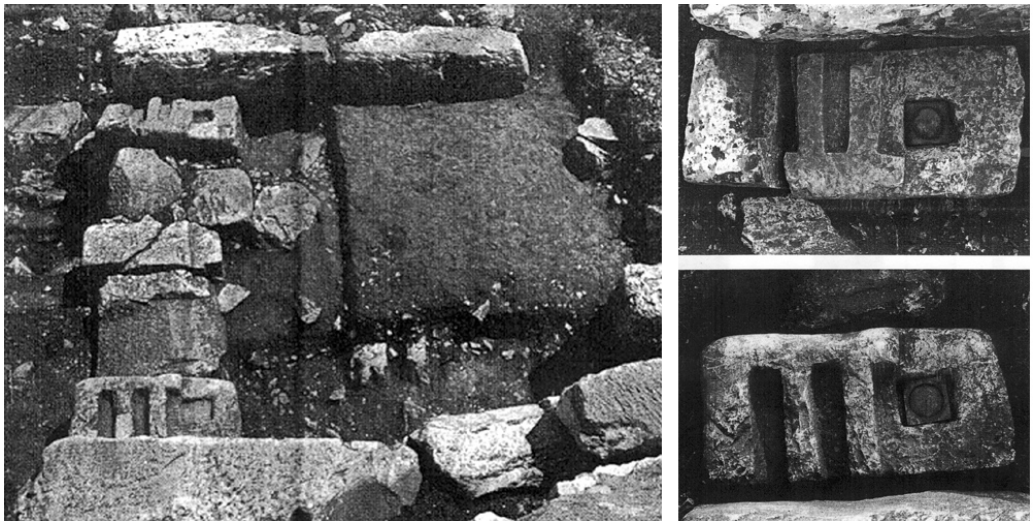


Fig. 9. New Halos, Acropolis Gate. General view of the cleaned gateway (left) and close-ups of the footing slabs with sockets and square pivot holes with bronze inserts (right). (Reinders 1988: 97-98)

In New Halos the threshold of the gate consisted not of a monolithic block but of five loose slabs laid directly on the ground, not on bedrock. Closest to the walls there were two thicker slabs with cuttings to receive the timber uprights of the gate as well as squarish pivot holes with bronze inserts.

(Reinders 1988: 95.) Another site where such footing slabs, although without the pivot holes, are well visible is in the so called Scaean Gate in Butrint (Fig. 10). Both threshold arrangements could have been possible in Agios Donatos, but at present it is impossible to say which.

During the excavation no clear ancient road surface or paving was discovered. Most likely the material was mixed in with the material collapsed from above. The excavated material consisted of earth, stone chips, tile fragments, small stones and occasional lenses of gravel, being thus indistinguishable from the road surface. The unevenness of the bedrock was most likely compensated by filling the area between the southern wall of the gate corridor and the highest bedrock outcrops with soil, gravel or even with a pavement, later removed or collapsed downhill. The only indication of the possible road surface was visible in the bedrock closest to the northern wall. The two highest protruding ridges of the bedrock seemed to have been trimmed flat on their upper surfaces so that the one closest to the gate was trimmed at a height of 227.16 masl., while the other was trimmed to a height of 227.20 m. These could indicate the ancient road level: The bottom of the cutting for the threshold block was at 226.90 m, thus allowing the use of approximately 30 cm thick threshold block or footing slab. From the gate the road would have risen to the first terrace within the fort, on which the chapel is built.

No signs of the locking mechanism of the gate were found either. The height of the top surface of the preserved blocks in the northern wall is approximately 228.56 masl., with no apertures visible in the wall. If the ancient road level was indeed at a height of approximately 227.20 m, the crossbar would have had to been placed at a minimum height of 1.40 meters from the road surface, provided that the bar hole was included within the next masonry course, now disappeared. It does not feel likely that a crossbar would have been placed any higher than that. For instance in Butrint there are a number of extremely well preserved examples of such crossbar holes in different gates, one near the theatre and the other in the Scaean gate (Fig. 10). The holes are roughly at a waist height, around one

meter from the ground, which is quite logical when one thinks that a locking bar of this size was most likely quite heavy to handle.

Fig. 10. Evidence of locking mechanisms elsewhere: Holes for the crossbars in two Butrintian gates, near the theatre (left) and in the Scaean Gate (right). Note also the footing slab with sockets for the timber uprights in the bottom of the right photo.

The southeastern gateway has been logically placed, with some fourty meter stretch of curtain built on its left hand side. Thus the enemy approaching the gate could have been subjected to defenders' point-blank fire on his unshielded right hand side. A similar placement of a gate can be seen in the southeastern gate of Dhimokastro, ancient Elina on the coast of Thesprotia. Although the old winding approach to gate has now been replaced by a modern road, the basic layout is still visible. The gate and the adjacent curtain in Dhimokastro had approximately similar dimensions as in Agios Donatos (Fig. 11).

Fig. 11: The southeastern gate of Agios Donatos (left) and the southeastern gate of Dhimokastro (right).

In addition to the clearly visible gates already mentioned, it has been suggested that there was a third gate near the western end of the fortress (Fig. 12). The gate would have cut across the southern curtain wall at a location where there is a small change of direction in the curtain, approximately fifty meters east from the extreme western tip of the fortress (Forsén 2006a). However, as this location is extremely badly destroyed there is no clear evidence for the existence of a gate there. The whole feature could just be a land-slide, as there are only a few blocks remaining *in situ*. In any case the ground below the suspected gate area would have been quite steep and thus the approach to the gate would have been difficult. If there was a gate here, I would think that it was nothing more than a small postern.

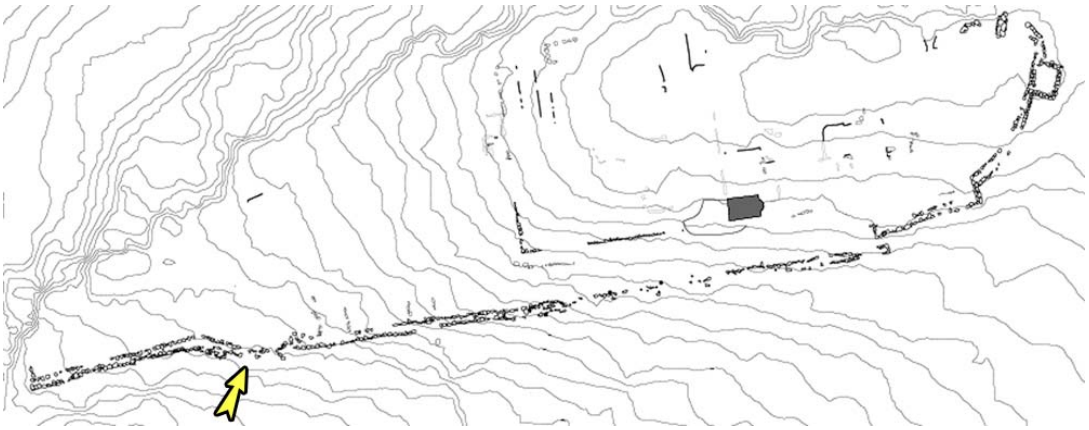


Fig. 12. Location of the suggested third gate next to a slight bend in the curtain wall. Detail of a total station map by Jari, Tuula and Aleksi Okkonen 2005.

The two certainly identified gates of Agios Donatos were approximately two meters wide. Thus the gates themselves were most likely two-leaved, with both of the leaves approximately one meter wide, so that there would have been no need for a wicket in these gates.

3.2. Tower

A large tower with a ground level chamber is found in the eastern end of the enceinte. It projects 4.3 meters from the outer face of the wall, and the width of the tower is 7.3 meters. Within, the tower chamber measures 5.6 by 4.1 meters, yielding a total floor area of approximately 23 m². Access to the chamber from within the fort is possible through a 0.95 m wide door at its southwestern corner (Fig. 13). The tower is clearly an original feature in the design of the fortress, as it is bonded to the adjacent curtains with carefully cut L-shaped blocks in the corners, forming the outer wall of both tower and the curtain. At its present condition the tower has been all but destroyed. The excavation trench near the doorway of the tower revealed that the walls actually do stand up to a height of three to four courses or some 1.60 to 1.80 meters. The suspected floor level was determined by a sterile reddish clay found throughout the excavated area. The difference in height between the upper surface of the clay layer within the chamber (234.70 - .83 masl.) and the ground level on the outside, right by the eastern wall is only approximately 20 cm.

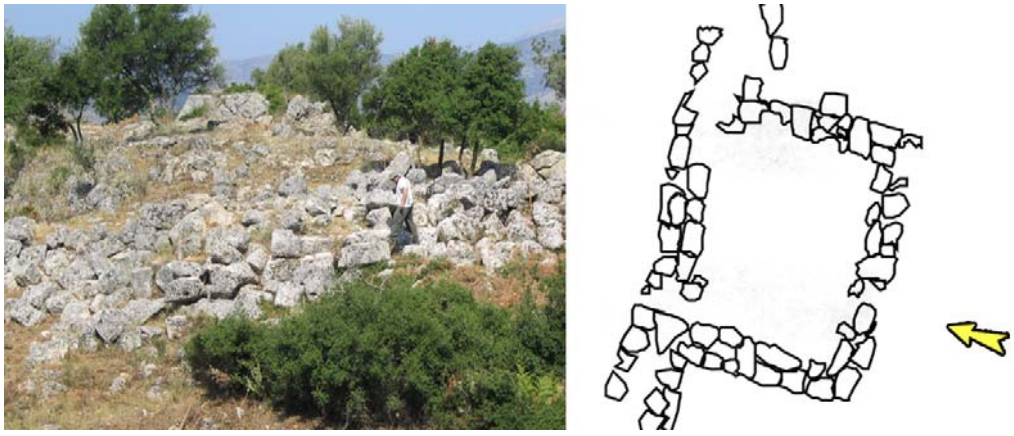


Fig. 13. The tower of Agios Donatos at its present condition seen from the east (left) and the map of the tower. Right, detail of the total station map by Jari, Tuula and Aleksi Okkonen 2005. The yellow arrow shows the point of view.

The walls of the tower are built of two faces of well cut, average sized polygonal limestone blocks ranging in size from 0.6 by 0.4 to 0.76 by 0.55 meters in width and height respectively, while the average thickness of

blocks varies between 0.37 and 0.43 meters. The blocks in the corners are nearly rectangular in shape, while in the middle of the walls the blocks are more polygonal with slightly undulating joint lines. The surface treatment of the blocks is quarry-face, i.e. the facing was left at a rough state and not trimmed at all after extraction from the quarry. There is only a narrow space between the insides of the facing blocks, which most likely never held any filling as there is no room. The total thickness of walls varies between 1.02 to 1.07 meters throughout the entire tower, even at the back wall. This is another feature which shows that the tower was a part of the original design of the fortress and not a later addition to an already existing curtain.

To add stability to the relatively thin walls, some large blocks have been laid crosswise as *headers*. The normal way of building a dry stone wall involves laying the blocks lengthwise as *stretchers,* and to stabilize the facing, headers penetrating into the filling and binding the wall around them. The headers could also run across the entire wall, joining the two faces. If they were systematically placed at certain intervals the headers would form compartments inside the walls. (Karlsson 1992: 68-69.) As the walls of the towers are thinner than curtain walls, headers have been more frequently placed (Lawrence 1979: 237). In the long, eastern wall of the tower there are at least two headers still in situ and the shorter walls both have at least two headers visible, although in different courses. The headers run across the entire tower wall, with their squarish heads visible in both the inside and outside walls (Fig. 14). The two clearly visible headers in the southern wall seem to form a possible masonry chain in approximately half way across the wall, although the inside face of the lower block could not be seen. The existence of such chains in the other walls is impossible to determine, as they are badly obscured by fallen blocks.

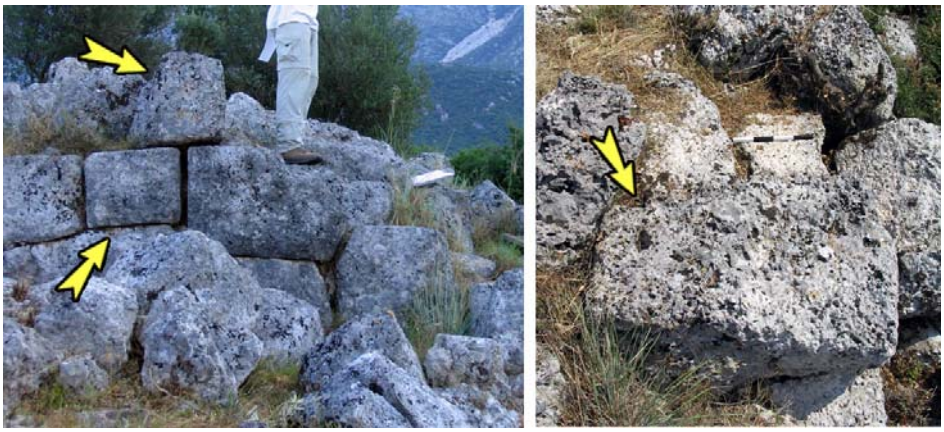


Fig. 14. Header blocks possibly forming a masonry chain in the southern wall of the tower (left) and the upper header block seen from above (right). Left photo by S. Silvonen.

Parallels for this kind of building method can be found elsewhere in Epirus, in Nekyomanteion, Gitane and in Butrint (Figs. 15 & 16). In Nekyomanteion's eastern courtyard there is a stone socle of a mudbrick wall approximately 0.75 meters wide, consisting of two faces of polygonal blocks with a narrow space in between. The second course of polygonal blocks has several headers penetrating the entire thickness of the wall. Another location where a similar construction is visible, is the complicated gate structure added before the main entrance to the central tower. These walls are thicker, approximately one meter thick, as they would also have been higher, originally probably as high as the stone socle of the central tower, some three meters. At least one header is clearly visible in the collapsed southern wall near the entrance to the central complex.

Another parallel can be found in the dividing wall or *diateichisma* of Gitane, the major urban center in the lower Kalamas valley. A gate of the diateichisma is flanked by a rectangular tower with a ground floor chamber. The masonry used in the tower is squarish polygonal, with walls approximately one meter thick. The walls are badly destroyed, with only one course remaining so it is impossible to say how frequently the headers were placed.

Fig. 15. The structure of the tower wall in Agios Donatos (left) with a header in the foreground binding the two wall faces is similar to the wall in the eastern courtyard of Nekyomanteion (center). A similar construction is also observed in the tower next to a gate of diatechisma in Gitane (right).

Still another informative parallel in the method of building a tower can be seen in the gate-tower of Butrint (Fig. 16). Although this tower differs in masonry style, the blocks being longish trapezoidal and in the design, with a semicircular front, the walls do have similarities. The walls of the Butrintian tower are also only one meter thick, with no central filling. Headers are placed at three block intervals, and the tower has a hollow ground storey.

Hammond thought this kind of construction method, two blocks thick with no central fill, to be unusual to such an extent that he mentioned it in his monograph, quote: "*Another peculiarity was that the walls of the tower were only two blocks thick, that is with no rubble core. This peculiarity is also found in Lekel (Antigoneia), at Dodona in the retaining wall of the theatre...and…at Labovë"* He dates the Butrintian tower to the reign of Pyrrhus (297-272). (Hammond 1967: 585.)

Fig. 16. Similarities of construction in the tower walls of Agios Donatos (left) and the gate tower of Butrint in Albania (right). In the left photo, note the header block in the foreground.

A tower of this size could have been three-storeyed and been covered with a gabled tile roof. J. P. Adam has studied the Hellenistic fortress of Kydna in Lycia. The tower no. 5 of Kydna (Fig. 17) is almost an exact match to the one in Agios Donatos, in regards to the size and execution. The masonry is polygonal with undulating joint lines in the middle of the walls, while the blocks in the corners are of nearly rectangular shape. All the corners also have drafting, as in Agios Donatos. The tower of Kydna measures 7.5 m in width by 4.3 m in projection, with the wall thickness ranging from 0,95 to 1.0 meters. Even the inner chamber has exactly identical proportions and area when compared to the one in Agios Donatos. In Kydna the ground floor chamber has two accesses from within the fort, while the access to the upper chambers has been from the wall-walk level. Adam reconstructed three floors to the tower, a ground floor chamber topped by two additional storeys. The ground level chamber as well as the floor above have three arrow slits per floor, in the middle of each of the walls. On the outside the slits were 12 cm wide by 95 cm high, widening in the inside to allow the defenders a wider field of fire. The width of the insides of slits varies between 68 and 82 cm, being widest in the broadest side of the tower. Adam reconstructed the top floor as having one large window in the middle of the wide wall, as well as slits on each of the shorter walls. He dated the enceinte of Kydna to the Hellenistic era, more precisely to the early 3rd century. (Adam 1982: 150-155, 165.)

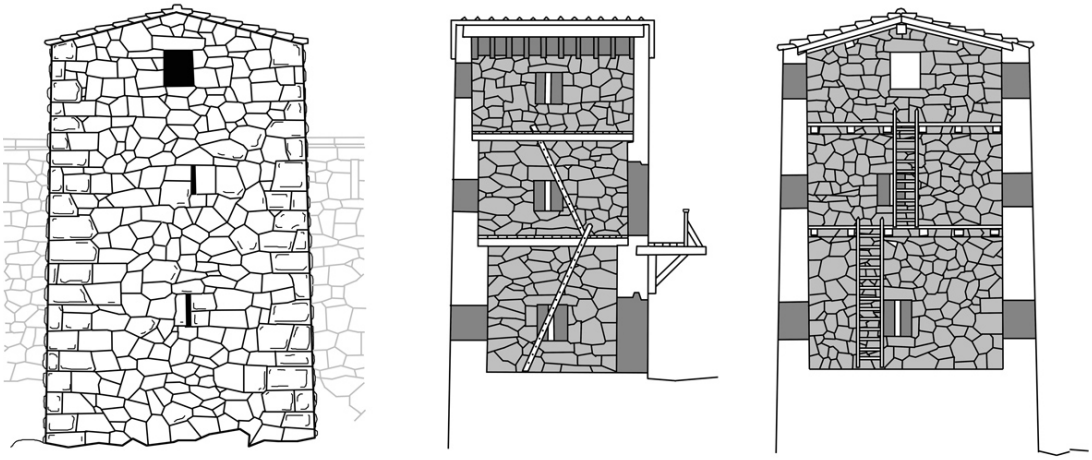


Fig. 17. Jean-Pierre Adam's reconstruction of the tower number 5 of Kydna in Lycia. This is what the tower of Agios Donatos could also have looked like. (After Adam 1982: 153-154).

Another parallel in the configuration of arrow-slits is visible in the gate-tower of Butrint (Fig. 18). This tower is so well preserved, to such a height, that the arrow-slits in the walls are preserved in their entirety. There is one slit in the middle of each wall, in a manner similar to the tower of Kydna, giving three directions of fire despite the round shape of the tower. The Butrintian tower clearly had a defensive function even in the lowermost chamber.

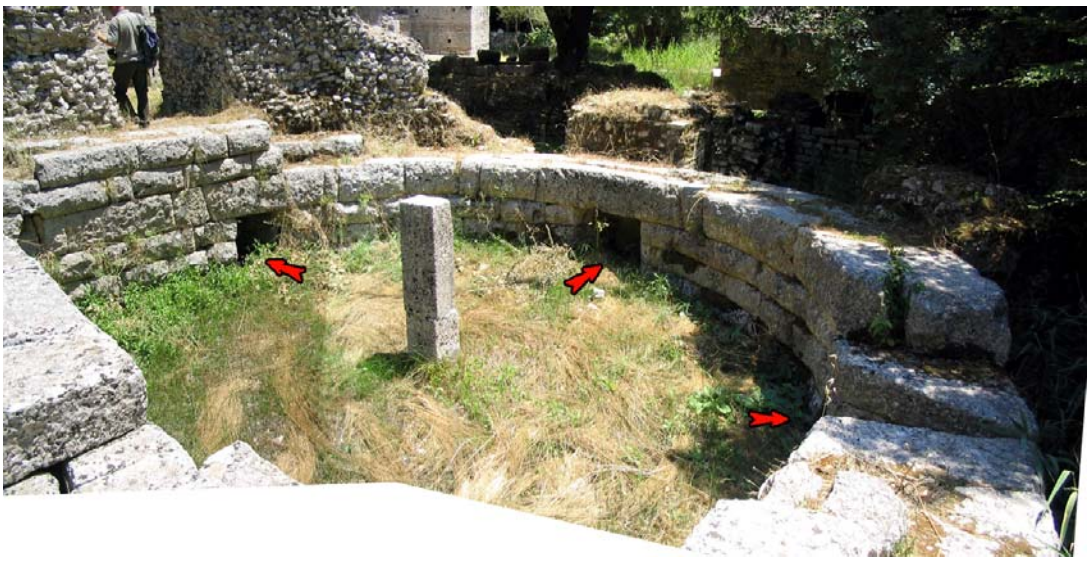


Fig. 18. Photo mosaic of the gate tower at Butrint, showing the arrow-slits marked by the red arrows.

In Agios Donatos it seems that there was no arrow slit in the southern wall of the ground floor chamber. During the excavation the southern wall was

uncovered down to a depth of 1.6 to 1.8 meters, but nothing reminiscent of a window or a slit was found there. Possibly the lowest chamber was used purely as a blind storage room with no windows or slits, and the defense was conducted from the upper floors. There is of course always a possiblilty that the north and east walls did have slits, but at present it is impossible to verify it.

A small chamber such as the one visible in Agios Donatos could only have held small arrow-shooting catapults or *oxybeleis,* as even the smallest stone-shooting catapults or *lithoboloi* needed hugely more space, thus being impossible to place there. F. E. Winter has calculated possible sizes of both stone-shooting and arrow-shooting catapults in his 1997 article *The use of Artillery in Fourth-century and Hellenistic towers.* According to him, a chamber of this size could accommodate a maximum of two oxybeleis up to the size of 3.50-span caliber, although this would have resulted in an extremely cramped interior. A 3.50-span oxybeles was some 3.20 meters long, with a width of 2.22 meters, shooting large arrows 80.92 cm in length. Apertures required for shooting with a machine of this size are calculated to have been located a minimum of 1.21 meters above the floor level, while the ceiling of the chamber could have been built quite low, only a bit more than a man's height, some 1.90 meters.

More likely, the armament could have consisted of three small catapults of 1.50 span or one cubit calibre on each of the upper floors. Being the smallest calibre available, these kind of machines shot bolts 34.68 and 46.24 cm long respectively, while requiring only 1.78 by 1.32 or 2.11 by 1.50 meters in length and width respectively. If the large catapults were mounted on pedestals, they could have been pivoted in such a way as to shoot through either the forward or side walls, protecting the adjacent curtains. Three one-cubit engines could have been placed in the middle of each of the walls, if the apertures in the walls were arranged in the manner found in Butrint or Kydna (Fig. 19, A-D). (Winter 1997: 250-251.) This is what I consider as being the most likely armament.

The investigation of Goritsá in Magnesia by the Dutch archaeologists in the 1970's yielded almost similar results as regards to sizes of tower chambers and artillery. An average Goritsá tower seems to have measured approximately some six meters wide by four deep with a 4.80 by 3.60 meter chamber within, yielding a floor area of ca. 17m². S. C. Bakhuizen suggested that a even a chamber of such small size could have housed four one-cubit oxybeleis, two firing through the wide front wall and one engine placed on each of the short sides. Alternative armament could have consisted of two three-span machines. Both of the alternative weapon layouts enabled the weapons to turn freely without hampering each others' usage. However, the sizes of the weapons used in the article were smaller from Winter's estimates, so that the one-cubit cataput required only 1.54 by 0.87 meters of space while a three-span engine would have needed an area of some 2.32 by 1.31 meters. Using these dimensions, the chamber of Agios Donatos could have housed up to two three-cubit or four one-cubit machines. (Fig. 19, E-G). What ever the case, no special underpinnings would have been necessary for any of these relatively modest engines as they were quite light, for instance one cubit engine would have weighed approximately 10 kg, while a three-span engine weighed around 32 kg. The recoil of discharge of such catapults was also virtually nonexistent, so the floors would not have needed any additional strengthening. (Bakhuizen 1992: 142-143, 159.)

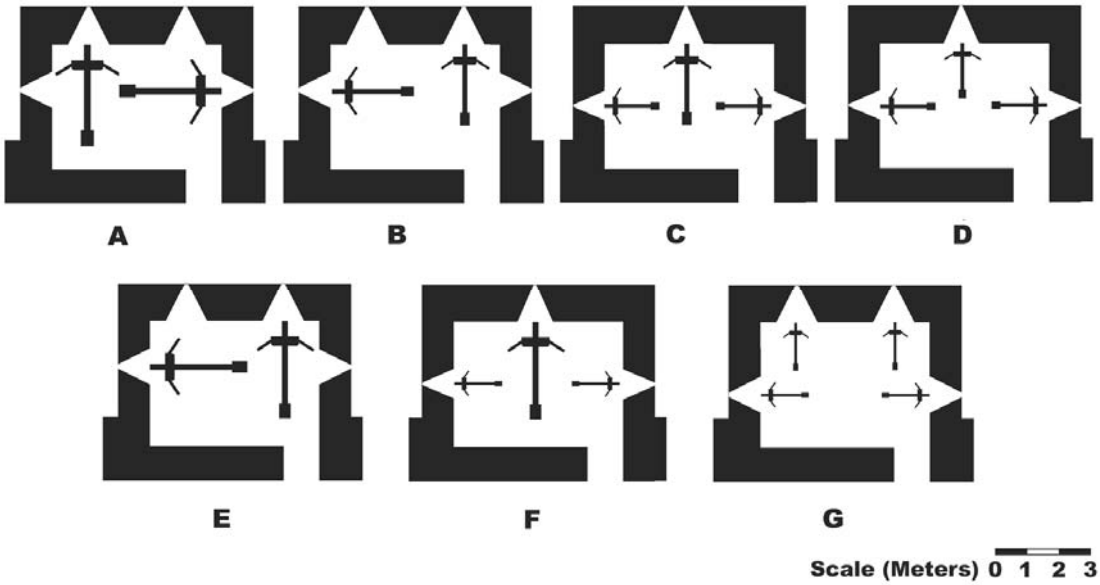


Fig 19. Possible arrangements of artillery pieces within the tower of Agios Donatos. Slit layouts hypothetical. Curtain walls (1.93 m thick) added to the sides of tower.

Winter's catapult dimensions:

A: Absolute maximum armament: Two 3,5-span oxybeleis. Extremely cramped interior.

B: More likely armament: Two 1,5-span oxybeleis.

C: Another layout of slits, maximum armament. One 1,5-span and two one-cubit oxybeleis.

D: Most likely armament: Three one-cubit oxybeleis.

Bakhuizen's catapult dimensions:

E: Maximum armament. Two three-span oxybeleis.

F: Two one-cubit and a single three-span oxybeleis.

G: Four one-cubit oxybeleis, different layout of slits. Also very cramped.

Perhaps the difference between the two scholars' catapult dimensions could be explained by the operating space needed: Maybe Winter's considerably larger and especially wider dimensions represent not only the weapon itself, but also the space needed by the operators when arming and firing the weapon.

Of course, it is also quite possible that Agios Donatos had no catapults what so ever, as archers would have been just as effective here. If not even more effective, in a sense that they could have been deployed anywhere along the fort's perimeter much more flexibly. Archers would also have shot through even narrower slits than those meant for catapults, which would also have made the tower less vulnerable.

Due to the limited size of the excavation trench, no clue as to the internal communication between the floors of the tower in the form of a staircase or such was found. It would seem most obvious that the floors were connected into each other only by means of wooden ladders and trapdoors like Adam suggested for the tower of Kydna (Fig. 17). Wooden ladders take the least space, whereas a stone staircase would take just too much room to be able to fit in such a small tower. It is also possible that the upper chambers were only accessed from the wall walk, with no interconnection between the ground floor and the upper chambers.

3.3. Curtains

Curtains or curtain walls are the actual walls of the fortresses, stretches of fortification walls between the towers. The Greeks called curtains *mesopyrgia* or *metapyrgia,* literally “between towers”. The curtain walls consist of the actual fortification wall topped by a wall-walk or *parodos*, and thinner *battlements* or *parapet* protecting the parodos. The walls were built of stone blocks, either completely of stone or of mudbrick superstructure on a stone socle. When a wall was built of stone throughout, it needed some sort of filling between the wall faces as the thickness exceeded some 1.5–1.75 meters and naturally, the higher the wall the thicker it also needed to be. Normally the height of the actual fortification walls varies between some 3.5 to 12 meters, while the thickness varies between 1.5 to 4.5 meters, although most curtains are between 2.5 to 3.5 meters thick. The height of the walls increased as the siege methods grew more and more sophisticated: Curtains six meters high or more are most likely not earlier than the fifth century, while the Hellenistic walls could reach up to heights of ten to twelve meters. An average curtain height in a number of sites seems to fluctuate between 6 to 7 meters. (Lawrence 1979: 343-345.)

To economise the use of materials, most of the blocks were laid as stretchers, lengthwise to the wall. Crosswise blocks, headers, running into the fill were employed to stabilize the walls and bind the facing to the core.

Walls with headers and stretchers alternating in the same masonry courses became the most common type of fortifications from ca. 350 onward. At a later stage the headers were used more systematically, forming internal crosswalls within the wall. Very long headers, *diatonoi*, running the entire thickness of the curtain wall were used to bind the two faces to each other and form the crosswalls. They would divide the fill into separate compartments, and limit the collapse in the event of a breakthrough. Hellenistic walls often have the entire fill compartmented by a series of crosswalls at regular distances, most commonly ten Greek feet or some three meters. (Karlsson 1992: 68-69; Lawrence 1979: 237.)

Typically the *parodos* or wall-walk was protected by *battlements* or breastwork one block or 0.5 to 0.75 m thick, allowing two patrolling men to pass each other unhindered. Early battlements, starting from at least the first half of the sixth century, were *crenellated*. This is the typical sawtooth design which remained in use even after the end of Antiquity. In a crenellated parapet high protective *merlons* alternated with lower *embrasures.* However, during the latter part of the fourth century, as catapults became ever more common new methods to protect the defenders were needed. Instead of a series of crenellations, an *epalxis,* a continuous screenwall a couple of meters high covered the entire parodos. The screenwall was pierced by arrow-slits and shuttered windows at regular intervals. (Lawrence 1979: 343-345; Winter 1971a: 127-135, 139-140.)

In Agios Donatos the entire southern slope was once fortified with a finely built polygonal wall, traces of which are visible along the entire hillside. Today the wall has been badly destroyed, with only short sections standing up to a maximum height of three meters or four to six courses in places. The wall consists of two faces of limestone blocks, with a core of compacted rubble and soil. The blocks are medium sized, ranging in average from 1.2 by 0.7 to 0.45 by 0.56 meters in width and height respectively, with block thickness ranging between 0.4 to 0.7 meters where visible. In the corners the blocks assume nearly rectangular shapes, otherwise they are polygonal. A few meters south from the southern wall of the tower the masonry of the

curtain forms very strongly “falling” course lines, but elsewhere the masonry is more regular polygonal, with undulating joints (Fig. 20). The facing treatment of the blocks can be described as a quarry-face. Near the corners the facing is strongly bulging, whereas elsewhere the bulge is not as clear.

Fig. 20. The masonry in the curtains of Agios Donatos. The polygonal blocks are more freely placed and slightly less bulging in the middle of the curtains (left, center) than in the corners where the masonry blocks assume almost rectangular shapes and have a clear bulge (right).

The thickness of the curtains varies from place to place. The average thickness in the eastern end of the enceinte is 1.9 meters, from the northeastern to the southeastern gate and beyond. After this the curtain is so badly destroyed that it is difficult to say anything about its thickness with certainty. When it is again visible near the western tip of the enceinte the curtain has grown to a thickness of approximately 3.2-3.4 meters. The wall is built of similar blocks throughout, directly on the uneven bedrock without any clearly distinguishable footing course. However, there is one location where such a footing course might exist (Fig. 21). There is a barely visible course of protruding blocks underneath the curtain located beside the southeastern gate (Tikkala 2006).

Fig. 21. A possible protruding footing course underneath the curtain wall next to the southeastern gate. Photos by Esko Tikkala.

The reason for its possible presence here could be explained with the need for additional strengthening of the wall. This stretch of curtain also acts as a terrace wall of considerable height supporting the first terrace on the site, approximately three meters above the gate level. The terrace runs from here, the first sawtooth jog of the curtain, westwards beneath the chapel and continues then as a terrace wall, built of large blocks (See Chapter 3.4). The massive weight of the earth behind this stretch of curtain wall would logically have needed all the additional support possible. Today the whole curtain bulges outwards, dangerously close to collapsing as the weight of the earth behind has pushed the upper blocks further outward than the ones in the lowest course. However, as the lowest course is badly obscured by the modern vegetation, it is impossible to say with certainty if it really is a purpose-built footing course.

The wall could have had occasional compartment walls dividing the filling into sectors, although due to the destroyed state of the curtain it is impossible to ascertain. If there really were compartments in the wall, they do not appear to be regularly spaced however. There is a single stretch of curtain close to the landslide and the suggested third gate (Fig.12) at the western part of the enceinte where such a wall might be visible. If it really is a compartment wall, there are no diatonoi running from facing to facing but instead the blocks run from the inner face of the wall to the other, all within the wall core. A similar construction is well visible in the city wall of Kassope where the fill has indeed been compartmented with just such walls at regular distances (Fig. 22). It is also possible that this feature in Agios Donatos is

just a pile of collapsed blocks left in a strange position, as it is badly obscured by fallen debris.

Fig. 22. A possible compartment wall running across the fill of the curtain close to the suggested third gate (left). Right, well preserved compartment walls at regular distances in Kassope.

All preserved corners of the wall are *drafted*, resulting in sharp, well defined straight angles. Width of drafting varies in average between 6 to 8 cm in all corners, including the edges of gateways. Also in the first jog of the indented trace, near the southeastern gate there is a groove 13 cm wide and 6 cm deep, cut into the masonry. It could be a badly preserved drafted groove, which disappears after a while (Fig. 23). However, it is not entirely clear if it really has been a purpose-cut groove due to its poor condition.

Fig. 23. Drafting in Agios Donatos: In the corner of the wall (left) and in the middle of a curtain (right). The badly preserved drafted groove has been highlighted by the red ellipse in the right photo.

Almost similar, although better preserved disappearing groove is also found in the eastern wall of Dhimokastro, right next to the large tower in the northeastern corner. Another such groove can be found in Butrint close to the Scaean Gate, where it first maintains a constant width and depth of 10 cm near the ground but then fades when moving upwards (Lawrence 1979: 242). In Elea there are several well cut grooves visible in the northern wall, in places where the wall bends slightly as well as in the middle of straight sectors of curtain (Fig 24).

Fig. 24. Drafted grooves elsewhere: Several in Elea (left), a disappearing one in Dhimokastro (center) and a large one in Butrint (right).

Hammond pondered these grooves, suggesting that they were used for drain pipes, necessary for keeping the core of the wall dry. If the core got soaked which was not impossible as Epirus is indeed the rainiest part of Greece, the volume of the fill would have increased causing the wall to bulge outwards and finally even topple it. And as Epirus is located in northern Greece the frost could also have been a real threat, causing the soaked fill to swell even more. (Hammond 1967: 715.) Another possibility is that the drafting was cut for plumb lines, to help builders to maintain verticality of the wall during construction. Drafting the corners has also an aesthetic side to it, as it helps to define the edges and makes the whole construction seem more civilized. Whatever the cause of making the drafting, it was used particularly often in Epirus (Lawrence 1979: 243).

The northern slope has most likely had stretches of walling near the extremities of the ridge for at least a few meters, although today there is

nothing left of them (Fig. 25). Today the wall in the extreme western edge stops abruptly, but it seems possible that originally the wall was built up to the steep, sharply weathered rock face approximately ten meters from the edge. The western face of the bedrock outcrop seems to have been cut as if to receive blocks. In the northeastern corner the massive corridor wall of the northeastern gate stops a couple of meters short of the cliff face, as it has collapsed entirely. A few meters west of the corridor wall there are some blocks which seem to form a wall, but there is nothing in between these remains. It would have been logical to build the corridor wall all the way to the edge of the cliff and connect it to the short stretch of wall, to block any entry attempts. West of the short stretch of walling the cliff is so steep and high that there is no need for any further protection.

Fig. 25. Possible walls on the northern slope side missing today, drawn in red. Both locations would be logical to fortify and the bedrock in both places seems to have been slightly trimmed as if to receive blocks. Detail of a total station map by Jari, Tuula and Aleksi Okkonen, 2005. Additions by me.

The enceinte has two right-angle turns of direction reminiscent of so called *indented trace* in the south-eastern sector (Fig. 26). Indented trace consists of alternating long stretches of wall, *faces*, and at right angles to faces, shorter *flanks* projecting outwards. This results in a serrated line with flanks and faces alterating, sometimes for considerable lengths as in Gortys in Arcadia (Fig. 27). Indented trace could be used as a cheap enfilading device

in protection of curtains, instead of more expensive towers. (Scranton 1941: 150, 153.)

In Agios Donatos the first jog has a flank measuring 3.8 meters, while the second projects out some 4.4 meters. The first face measures 40 meters in length, while after the second jog the wall assumes a ruler-drawn direction for an extremely long stretch of 200 meters. The course of the wall is east-northeast to west-southwest, and even the first face of sawtooth wall is built in the same alignment (Fig. 26).

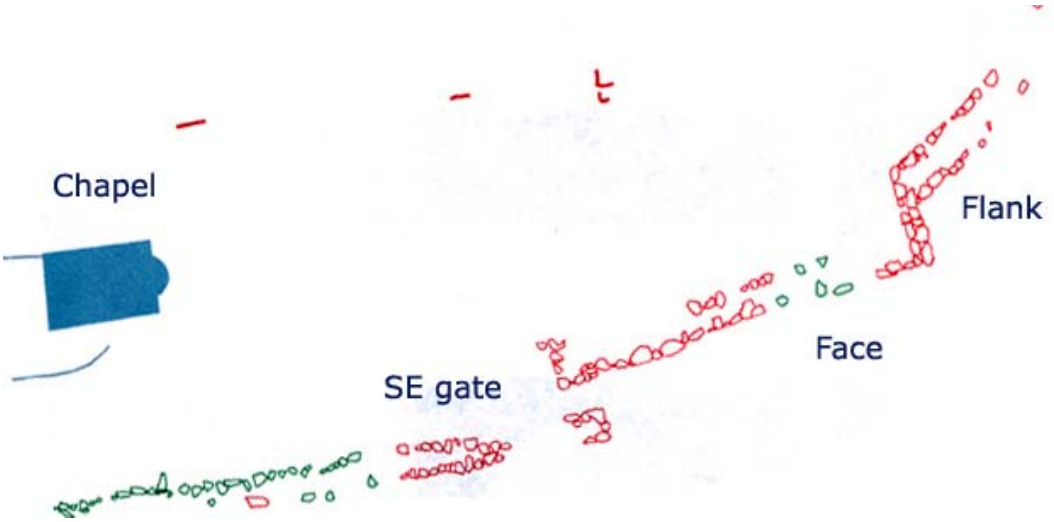


Fig. 26. Indented trace at Agios Donatos. Detail of a total station map by Jari, Tuula and Aleksi Okkonen, 2005. Texts added by me.

Roughly similar construction can be observed in the northeastern sector of the larger enceinte of Gortys in Arcadia (Fig. 27). Here the southwestern sector of the larger enceinte has five jogs, the length of whose faces varies between 26.50 and 33.45 meters, with protruding flanks varying between 2.35 and 2.45 meters. Also, the northern wall consists entirely of 26 sawtooth jogs with no towers. The first three jogs near the northeastern gate have faces measuring 36, 32 and 31.25 meters respectively while the other jogs are considerably shorter, only between 9 to 12 meters. The projection of the jogs in the northern sector is also only 2 to 2.5 meters. (Martin 1947: 93-94, 97-98.)

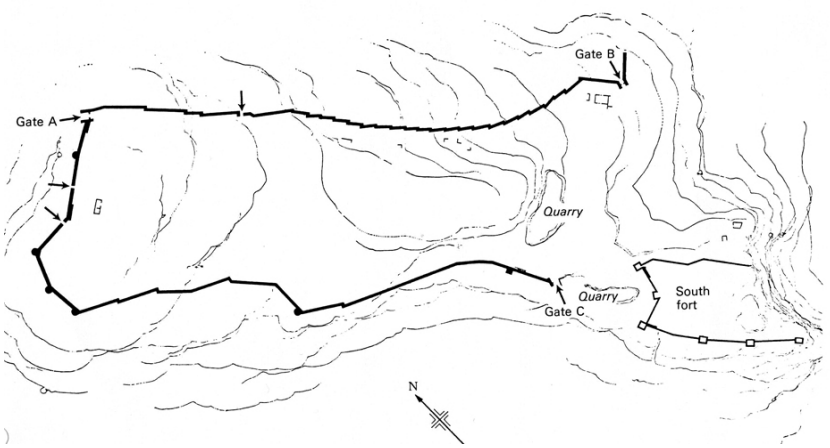


Fig. 27. Indented trace in Gortys, Arcadia. Note the south-western and the northern walls. (Lawrence 1979: 354)

Indented trace is also found in the Illyrian and Epirote fortifications. In southern Illyria zigzag walls could occasionally be used from the seventh century onwards. The city wall of Phoenice in modern Albania has indented trace with no towers in its southern expansion, dated to the early fourth century. (Ceka 1988: 219-220.) Closer to Agios Donatos, the southern wall of Gitane is protected by a wall consisting solely of indented trace without towers. In the acropolis of Dodona, the southeastern wall south of the gate has a couple of sawtooth jogs (Fig. 28).

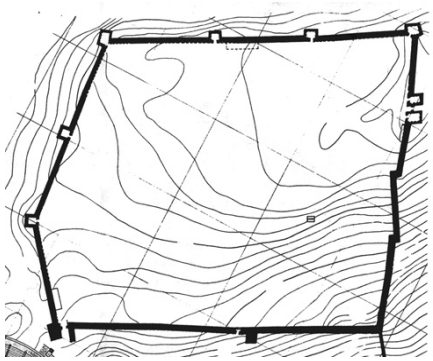


Fig. 28. Indented trace in the acropolis wall of Dodona. Note the southeastern corner. (Dakaris 1993: 24-25)

In Agios Donatos the curtain wall runs in a straight line for approximately 200 meters from the southeastern gate. It is then interrupted by a 20-meter break in the wall where it has been washed away completely, possibly due to a landslide. After the break there is a gentle curve in the wall towards west, resulting in a slightly concave course. Then the wall resumes its ENE-

WSW course for the last 50 meters. The wall finally makes a straight angle turn enclosing the last piece of level ground in the area and stops abruptly. Today the short northern stretch from the western wall to the outcrop is missing, but it would seem possible that it once existed here (Fig. 25). If it did, the western extremity would have formed a bastion-like structure, commanding good views all across the Kokytos valley below.

A peculiar feature can be found in the best preserved corner of the enceinte, forming the first of the jogs of the indented trace. A ground level chamber seems to have been built there (Fig. 29). The walls here are narrow, built of two faces without filling, as the space between facing blocks is extremely narrow. The entire thickness of the wall in the corner is only one meter, while the normal thickness of nearby curtains is almost double that, 1.93 meters. The structure bears a close resemblance to the only tower of the enclosure, which also has an average wall thickness of one meter. However, this structure has hardly been a real tower, as it does not project from the curtains. Due to the current destroyed state of the fort, the size of this chamber is unknown as the inside walls of the chamber have disappeared. The preserved walls of the chamber are only one course high making it impossible to say whether or not headers were used in the construction. Using headers would be quite logical however.

Fig. 29. The ground level chamber near the southeastern gate, view from the north (left) and a detail of a total station map by Jari, Tuula and Aleksi Okkonen, 2005 (right). The yellow arrow shows the point of view.

South of the tower the roadway to the chapel has been bulldozed through and over the wall, obscuring what might remain of the curtain. Only very slight traces of blocks could formerly be seen on the surface of the road, but a cleaning operation aiming to find the actual course of the wall was carried out by the Thesprotia Expedition in July 2005 resulted in finding the edges of both inner and outer face blocks of the wall for most of the way. For a couple of meters in the direction of the tower the trace of wall remained obscured, but one could clearly see that it ran in a consistent, convex course. Earlier reports concerning Agios Donatos tell of one gate and two towers as being located in the eastern end (Dakaris 1972: 138; Hammond 1967: 71). Possibly they thought that the main gate of the fort was located here, under the roadway, and that the chamber in the first jog constituted a second tower which is not surprising as the construction with a narrow two-faced masonry is identical to the one found in the tower. It would have been possible to use the chamber as cover for archers. Another possibility for the use of the chamber could have been to house small, bolt firing artillery pieces, firing through narrow slits only slightly larger than arrow slits. Larger lithoboloi shooting through large window-like apertures could not have been placed here, as this chamber is very small, even smaller than the one in the tower.

If this chamber within the first sawtooth jog was regarded as being the second tower, then where is the second straight-angle turn as reported by the same scholars? Perhaps the slight bend in the curtain near the western end, next to the suggested third gate (Fig. 12) was regarded as such. However, this bend is not even close to forming a straight angle turn but instead seems to be a consequence of following the line of the ridge, in search of the most advantageous bedrock to build the wall on. Perhaps the scholars just made a mistake here.

In Agios Donatos no clues as to the height of the curtains or the construction of battlements has been preserved. One would think that the wall need not have been more than a couple of meters high on the uphill face, while due to the direction and steepness of the slope the height of the outside wall face would easily have reached a considerable height. It is impossible to verify,

however. Also, due to the poor preservation of the ruin, it is impossible to say with certainty whether the parodos on top of the curtain wall was protected by means of a crenellated parapet or a continuous screenwall. I'm inclined to think that a screenwall would have been more likely choice. It has a higher protective value and as a continuous barrier all across the walls it would have easily increased the height of the walls with some two meters making the attempt of escalade by hostile troops even more difficult. The possibility of a fairly late dating of the fortress would also make it more likely choice than the older, pre-catapult era crenellated parapet.

3.4. Other structures on site

Approximately half way up the southern slope there is a massive terrace wall, built of polygonal masonry reminiscent of fortification walls (Fig. 30). It follows the orientation of the fortress, starting near the first jog of the sawtooth wall and then extending westwards in a straight line for approximately 100 meters, through the chapel site and onward. Then it makes a 90 degree turn towards north-northwest and runs for an additional 40 meters. The terrace consists of polygonal wall on the southern side, built of same sized blocks as the fortification walls themselves, although less carefully with loose joints.

Fig. 30. The polygonal terrace wall on the southern slope of Agios Donatos. The blocks used are of the same size as the ones used in the fortification walls, although the joints are less carefully fashioned. The corner (left) is carefully built, however.

On the western slope the terrace is not built, but it rather consists of bedrock terraces formed by quarrying. In places occasional large blocks on top of these terraces suggest that they were additionally heightened by masonry (Fig. 31).

Both Hammond and Dakaris reported having seen a cross-wall or *diateichisma* dividing the fortress in two (Hammond 1967: 71; Dakaris 1972: 138-139). No diateichisma was found in 2005, and it seems that they thought of this best preserved terrace wall as being such. Close to the summit of the ridge on the northern side there are also remains of a similar, although lower terrace wall, also with a ninety degree turn. Althogether there are four terraces on the western slope and two on the southern slope, none with as impressive walls as the first.

Fig. 31. The same terrace on the western slope. Here it consists mostly of rock cuttings formed by quarrying.

The ridge also bears traces of buildings once having existed on the long terrace directly above the chapel. The whole large terrace from near the southeastern gate to the chapel site is formed by the extraction of blocks for the fortifications. The rooms have been separated by thin bedrock ridges left at an unmodified state and used as foundations of walls. There is a parallel for this kind of use of flattened bedrock terraces as house foundations at Dhimokastro. Unfortunately there is no way of dating the foundations found on Agios Donatos without excavating them. They might actually date from the Roman period or even later.

4. Chronology and Function

4.1. Date of fortifications

The question of dating the fortifications is the first aim of this study, a difficult task due to lack of information available. Despite the great number of fortified sites found in Epirus only a few have been sufficiently investigated or published so far. Datable archaeological finds are scarce and modern day metal detectors help looters to rob sites of coins, which could help in dating. We only know that according to Dakaris and Hammond an Ambracian copper coin dated between 238-168 B.C. had been found in Agios Donatos or its vicinity at some stage (Dakaris 1972: 139; Hammond 1967: 717).

Hammond suggested in 1967 that in Epirus ashlar walls are actually earlier than polygonal, most of which can be dated to late fourth and third centuries B.C. (Hammond 1967: 711-716). Polygonal masonry was in vogue in the fourth century and the Hellenistic period, due to its inherent strength and rugged but aesthetic appearance, but a closer dating on the basis of masonry alone is hopeless. Some clues to the dating can be deduced from the historical development in the area and most importantly by comparison with the other, securely dated sites.

The whole of ancient Elaeatis of Thesprotis was extensively fortified (Maps 2 & 3). On the lower Acheron valley there are the fortified cities of Kastri and Ephyra. In addition there are other fortified sites at Cap Cheimerion, on the northern edge of ancient Glykys Limen and the Nekyomanteion on a ridge which once separated the Glykys Limen from the Acherousian Lake. In the Kokytos valley Agios Donatos is not the only fortified ancient site, far from it. The foothills of Paramythias range have several fortifications built on them, all on the eastern side of the river. Only 970 meters south-southeast of Agios Donatos there is another fortified acropolis, Kioteza. Five kilometers north of Agios Donatos there is the major city of the area, Elea, and four

kilometers north-northwest from that there is the castle of Paramythia, also a large site with ancient foundations.
Such abundance of fortified sites in close proximity can help in solving the question of dating. Of the other sites, the Nekyomanteion is by far the best published, and both sites do indeed share common structural characteristics in places. In Agios Donatos the walls of the tower and of the chamber in the first sawtooth jog have close parallels in Nekyomanteion. The walls in question are all relatively thin, approximately one meter thick or even less, all built of polygonal masonry without filling, and the faces of the wall are bonded to each other using headers. The gateways also have drafted corner only on the façade side, not on the corridor, which side is trimmed flat.

Similarities in construction are not surprising, if Elaeatis indeed consisted of the Kokytos valley and the lower Acheron valley including Ephyra which is only some 800 meters north of Nekyomanteion. Both are built on a high spur which constrcits the valley of lower Acheron, near the confluence of Kokytos. The location of Nekyomanteion is logical for a small fort, controlling access from ancient Glykys Limen to the Acherousian Lake and upstream. Even if the area was not a part of Elaeatis at the time of Nekyomanteion's construction the site is well enough published to be used as a general aid in comparing similar walls, and Baatz' article certainly gives good overview of its phases and dating.

The method of construction used in the tower of Agios Donatos and especially the fact that there is a hollow chamber at the ground level can help in dating the fortress by ruling out some possibilities. Early towers were built with a solid base up to the wall-walk level of the adjoining curtain walls. A chamber was built in the wall-walk level and the flat roof of the tower consisted of a fighting platform with a crenellated breastwork. Such towers began to appear during the Archaic period, and by the late 5th century they were commonly used in enceintes, although at this time unsystematically scattered along the enceintes. It was not until the time of the Peloponnesian War that the first towers with hollow ground storeys were introduced, initially as blind storage rooms or for accommodation of soldiers. For some decades

they still remained uncommon, but the introduction of catapults as defensive weapons changed the situation. Some of the earliest securely dated examples of towers with ground storey chambers can be found in Aegosthena in Attica, dated to the late 4th or early 3rd century. However, during the 3rd century hollow based towers became common, as they enabled defensive catapults to be placed even at the foot of a wall. (Forsén et al. 2005: 311; Winter 1971a: 153-155, 162.) Looking at the tower of Agios Donatos, one can clearly see that it was built with a hollow ground storey from the beginning: The walls are two-faced, with similar blocks used both in the outer and inner walls, and there are header blocks binding the both walls together. If the tower had originally been built with a solid base, the header blocks or the inside walls would not have been there as it would not have been necessary. If the inner wall would have been a later addition it would have been built using smaller stones, as it would have been impossible to insert such large blocks into the wall at a later stage when the tower was already standing.

Also notable is the fact that the fortress of Kydna, along with its exactly matching tower with a hollow ground storey and slits was also dated to the early 3rd century. Adam thought that the most likely building date of the fortress would have been during the reign of Ptolemy II Philopator who ruled in 283-246 and whose domain the area belonged to (Adam 1982: 165).

Within the Kokytos valley context there are similarities between the masonry styles of Agios Donatos and the Castle of Paramythia. The masonry in the western half of Agios Donatos has a close parallel in lowest courses of the western curtain wall of Castle of Paramythia, between the lower gates. This is the largest preserved section of ancient walls on the site, still standing up to a height of approximately five meters (Fig 32). Hammond calls the masonry at Paramythia "large polygonal" (Hammond 1967: 73). In both locations the blocks have a rough "quarry face" with slightly bulging center section.

There is also a partial resemblance of masonry styles in some stretches of walling of Elea, especially in the northern wall (Fig. 33). However, mostly the masonry differs radically from Agios Donatos, especially in the lowest parts of the northeastern wall and in the long, eastern curtain wall. Hammond calls the masonry “massive polygonal” (Hammond 1967: 72). The blocks used in the *lower* parts of these walls are more rectangular, considerably larger and with an extremely wide drafted margin all around the facing and a very strong bulge in the middle. Alternatively, some blocks have an entirely smooth, flat, *tooled face.* The upper courses, on the other hand, do resemble the masonry in Agios Donatos. These blocks are slightly bulging, with no drafted margins except the occasional vertical grooves and their joint lines undulate. Perhaps the different masonry styles in the walls of Elea represent different building periods, but currently it is impossible to say anything more about it.

Fig. 32. Similarities of masonry styles in the western half of Agios Donatos (left) and the western curtain wall of Paramythia (right). In Paramythia the upper joints of the wall have recently been filled with mortar, in connection with the ongoing restoration of the site by the 8th Ephorate for Byzantine Archaeology.

Fig. 33. Similarities of masonry styles in the western end of the southern curtain of Agios Donatos (left) and the northern wall of Elea (center). Although masonry in the lower part of the northeastern wall of Elea (right) differs radically from the masonry of Agios Donatos, the upper part on the other hand does resemble it.

Dating all these walls to the early Hellenistic period would make sense. The time of king Pyrrhus and his immediate successors in the early third century saw the greatness for Epirus. A fervent building activity of fortifications as well as other structures ensued at this time. When things started to go wrong for the Koinon of the Epirotes in the late third century, another peak of building activity followed. Illyrian surprise capture of Phoenice, the wealthiest city of Epirus in 230 and the ensued looting of countyside as well as the Aetolian plundering of Epirus in 219 and 217 resulted in revitalized efforts to fortify different positions. According to Hammond the period between 240 and 167 was the most populous time of Epirus and it is likely that the last additions to the city-circuits were built at this time, using *large* or even *massive* polygonal masonry. Before and also overlapping with the large or massive polygonal style of ca. 230-167, is the *medium* sized polygonal style dated by Hammond to ca. 280-230. (Hammond 1967: 668.)

If this is the case, the massive polygonal style used in Elea and the large polygonal style of Paramythia would date the sites to the latter half of the third century. Hammond also categorized Agios Donatos as having large polygonal masonry, but it would seem that the measurements he gives for typical blocks (1.40 x 1.00 x 0.60 m) were most likely obtained from the well visible corridor wall of the northeastern gateway which consists of blocks

with these exact dimensions (Hammond 1967: 71). These few blocks are by far the largest used in the whole enceinte, differing radically from the others. Elsewhere in the enceinte the blocks are considerably smaller, (i.e. 1.17 x 0.68 x 0.64 – 0.45 x 0.66 x 0.56 m) and it would seem that they actually belong to the *medium* sized category. If this is the case, if one tries to date the three sites with the size criteria alone, Agios Donatos would be *earlier* than Paramythia or Elea, the central sites of the valley.

I do not think that it would have made any sense to build the two large sites of over three hectares in size (3.5/4 – 10 ha) in the span of just a few last decades of the 3rd century. The need for security would obviously been there in the troublesome period of late third century, but would it have been possible to finance the obviously very costly building of two large enceintes then? Most likely not. Instead, I would think that the large enceintes of Elea and Paramythia would be *older* than the less important fortress of Agios Donatos, with medium sized polygonal masonry. To get a more reliable dating for the walls one has to look for parallels elsewhere.

When looking around for parallels for these Thesprotian sites in a wider area, the wall typology of the Danish Kephallénia survey yields possible parallels. Of the 27 wall types distinguished by the survey under Klavs Randsborg, three are interesting in view of Thesprotian forts. *Type 8* consists of relatively well-built polygonal walls with slightly curved blocks. An interesting feature associated with this type is its usage in terrace walls and fortifications in the fortified town of Poros. Similar walls are also found in Western Kephallénia, in the unfinished city walls of Krane. Based on this Randsborg dates this type to around 300 or the first quarter of third century B.C. *Type 9* is quite similar to the previous, but the blocks are slightly more quadrangular. Walls with such blocks are found in the eastern enceinte of the town of Poros, and in the outer circuit of Nekyomanteion. Based on this Randsborg dates the style to the second quarter of third century. Finally, *Type 11* consists of well-built walls made up of medium sized blocks with fairly smooth or only slightly bulging surface. Such walls are common in western Greece, parallels can be found in Same, Krane and

Palaeokastro/Pronnoi in Kephallenia as well as in the mainland. Similar walls are found in Epirus: Rogon/Bouchetion, Gitane and Kassope, and most importantly the Nekromanteion's central complex has been built using this style. The problem is the vagueness of dating such a style. Randsborg suggests the dating of this style as between 350-275, or even down to 200 B.C. (Randsborg 2002: 216-227.)

Randsborg's types 8 and 11 correspond closely to the masonry in Agios Donatos in my opinion, while type 9 can be used with reservations. The description of Type 9 as being "more quadrangular" would fit the corner blocks of Agios Donatos, although no good pictures of the style could be found. The most interesting type in view of the curtains is type 8. Use of such masonry in the terracing as well as in parts of fortifications in the fortified town of Poros yields an interesting parallel. The eastern, lower plateau of Poros has several terraces built of a variant of type 8 masonry using smaller blocks. The terraces form part of a planned city, built either parallel or at straight angles to each other. The fortifications surrounding the area have standard type 8 masonry used in the western half. (Randsborg 2002: 216.) The mention of terraces is interesting, as Agios Donatos has four terraces in the western part of the ridge, all of which are aligned parallel to each other. In addition, the southern hillside has traces of at least one well built terrace wall at straight angles to the beforementioned ones, with carefully cut polygonal blocks forming a still standing corner.

At the eastern end of Agios Donatos the joint lines in the walls undulate wildly, forming strongly falling joint lines. There is a clear resemblance between the Style 8 wall at Poros and the eastern end of the curtain at Agios Donatos (Fig. 34). On the other hand, the masonry at the western end of Agios Donatos with mildly undulating joints is similar to the city wall of Leukas in Kephallénia (Fig. 35). Randsborg claims that the wall at Leukas also has similarities with Type 11. In addition, the wall in the photograph bears a great resemblance with the preserved stretch of curtain in Paramythia (See figs. 34 & 36).

Fig. 34. Clear similarities of masonry styles. On the left Randsborg's *Type 8* in Poros, Kephallénia (Randsborg 2002: 218). On the right, curtain at the eastern end in Agios Donatos, close to the tower.

Fig. 35. Similarities of masonry style. On the left Randsborg's *Type 8* at Leukas, Kephallénia (Randsborg 2002: 220). On the right, a stretch of curtain near the western edge of Agios Donatos.

The masonry of Agios Donatos bears also a close resemblance to Randsborg's Type 11, especially in the curtain next the southeastern gate (Fig. 36). The same style of masonry can also be found in the city walls of Kassope, dated to the mid-4th century (Hoepfner & Schwander 1994: 123). They bear a very close resemblance to the wall of Paramythia (Fig 37) and could very well be of the same period. Thus I suggest that the walls of Paramythia should be dated to the mid or latter half of the 4th century rather than late 3rd, as suggested by Hammond. Also noteworthy is the fact that although slightly obscured, the possible compartment wall in Agios Donatos and the well visible ones at Kassope (Fig. 22) seem to be similar and both seem to be built with the same technique.

Fig. 36. The similarity of masonry styles. On the left, the Type 11 “Enceinte Wall 9a” of Same in Kephallénia (Randsborg 2002: 223). On the right, the curtain next to the southeastern gate in Agios Donatos.

Fig. 37. Similarities in the masonry styles in the preserved stretch of curtain in Paramythia (left) and the western curtain of the city wall of Kassope (right). Right photo (Randsborg 2002: 225).

A typically Epirote feature in all the fortifications in the Kokytos valley is the drafting of straight-angle corners. In the long straight wall stretches there are also clear vertical grooves cut to the masonry. Drafting can also be found at the bends of the walls. An example of such can be found in Elea, wherever the northern wall makes a slight turn. Even Kioteza has a faintly visible drafting at its only preserved corner (Fig. 38). In Nekyomanteion all the corners of the central tower, as well as the gate complex, have a clear and well cut drafting. In the latest addition to the complex, the western courtyard, there are no drafted corners in sight.

Fig. 38. A faintly visible drafted corner at Kioteza shown by the arrow. Photo by T. Turmo.

In Agios Donatos drafting can be found in all visible straight angle corners, including the inside corners of gate corridors. Due to the badly destroyed nature of the site it is impossible to say whether the straight sectors had drafted grooves in other locations than the badly preserved one close to the southeastern gate (See Fig. 23). Hammond also noticed the frequent use of drafting in corners in Epirote fortifications and was inclined to think that it was characteristic of the last stages of Pyrrhus' reign, i.e. 280's-270's (Hammond 1967: 584).

Indented trace was used as an enfilading method, and R. Martin suggested that the sizes of jogs could be in connection with the possible weaponry of the defenders. A javelin has a maximum range of 30 to 40 meters, although the average range is around 25 meters. An arrow on the other hand has an average range of approximately 75 to 80 meters. Gortys has eight jogs which correspond closely to the ones in Agios Donatos in size, with faces approximately 40 meters long, although with only half the projection of Agios Donatos' jogs. Martin dates the original phase of construction of the large enceinte of Gortys to the early 4th century. In the 360's the northern wall was destroyed as a consequence of rebelling against the Arkadian League. During the Macedonian occupation of the Peloponnese the fort was re-used as a stronghold, and the destroyed wall was rebuilt in the last decades of the

4th century. According to Martin the Macedonians favoured indented trace, which is a cost-effective and quick method to build. Winter reconsidered the dating of indented trace, coming to a conclusion that such jogs without additional towers are only found in contexts dating between 375 and 250. Complicated versions of such seem to have been used during even shorter period, from 335 to 260. From the late third century onward the indented trace lost ground to strong multistoreyed towers due to the developing siege machinery. (Martin 1947: 136-145; Winter 1971b: 424.)

In Epirus the use of indented trace seems indeed to be dated to the late fourth century. The southern expansion to the city-circuit of Phoenice, dated to the fourth century, consists solely of indented trace. Slightly more advanced version can be found in the acropolis of Dodona. There one can find both ten strong quadrangular towers as well as a short stretch of indented trace, all dated to the latter half of the fourth century. (Ceka 1988: 219-220; Dakaris 1993a: 34-35.)

The best dating parallels can be obtained from Nekyomanteion, which is certainly the best published site nearby. Its building phases have been summarized by Dietwulf Baatz in his 1999 article *Wehrhaftes Wohnen*. The first phase consisting of the central tower and half of the gate-complex was built in the end of 4th or early 3rd century. Second phase saw the enlargement of the gate-complex toward southeast, in the early 3rd century. The third phase consisted of adding storage rooms to the east and north of the central tower soon therafter, i.e.before the mid-3rd century. All these phases have similarities with the walls in Agios Donatos, in the form of building narrow walls with headers at intervals and clear drafting of corners, also drafting the façade side of doorway blocks but leaving the corridor side without one. The last phases of construction consist of western enlargements in the area where the modern entrance to the site is (Fig. 39). They are dated to the late 3rd century, closer to 200 B.C. (Baatz 1999: 151-152.) The latest walls are different in appearance and execution when compared to the other walls on site. There are no headers in the roughly and fairly carelessly built “large polygonal” walls, with frequent small stones

plugging the holes between the larger blocks. The joints are also fairly loose and there is no drafting in sight.

Fig. 39. The curtain of the western addition of Nekyomanteion, dated to the final decades of the third century. The masonry is relatively rough and there is no drafting in sight.

Based on all the beforementioned parallels dating the walls of Agios Donatos to the first half of the third century, that is, the reign of Pyrrhus or his immediate successors would make sense. During his time the fortress building activity was at its peak, and the administrative centres of major tribal areas were among the first to receive attention. Such centres were located in Passaron, *Paramythia*, Gitane, Butrint and Phoenice (Hammond 1967: 586).

Unfortunately such a view was not as clear when taking the archaeological material into account. In the excavation of 2006 most of the found material seemed to date from the Roman period, but some finds were clearly earlier. At this stage most of the pottery and other analyses are unavailable, but four coins found within the tower can shed some light on the dating. Three out of the coins are indeed Hellenistic while the fourth one is of a later date. Of the few thus far studied ceramic objects, a fragment of a Greek lamp also found from within the tower does support the dating hypothesis. However, the excavation revealed that all the layers and the material in the trenches are completely mixed, with nothing *in situ*.

The fragment of a lamp is a nozzle piece of a wheel-made lamp (Fig 40). It seems to be made of relatively rough material with no decoration or glaze. According to Jeannette and Björn Forsén, the closest parallels of such a lamp can be found in R. H. Howland's typology for the Greek lamps found in the Athenian Agora. When compared to the lamp from Agios Donatos, Howland's Type 30 b, numbers 419 to 421 are quite similar in shape and especially number 419 is almost an exact match (Fig. 41). The dating of this type is mid-4th to the first quarter of the 3rd century (Howland 1958: 97-98; Plate 41.) The main difference between the Athenian lamps and the one from Agios Donatos is that all the Athenian lamps have traces of black glazing left whereas none is visible in the lamp from Agios Donatos.

Fig. 40. The nozzle piece of a small Greek lamp found within the tower. Photo by E.Tikkala.

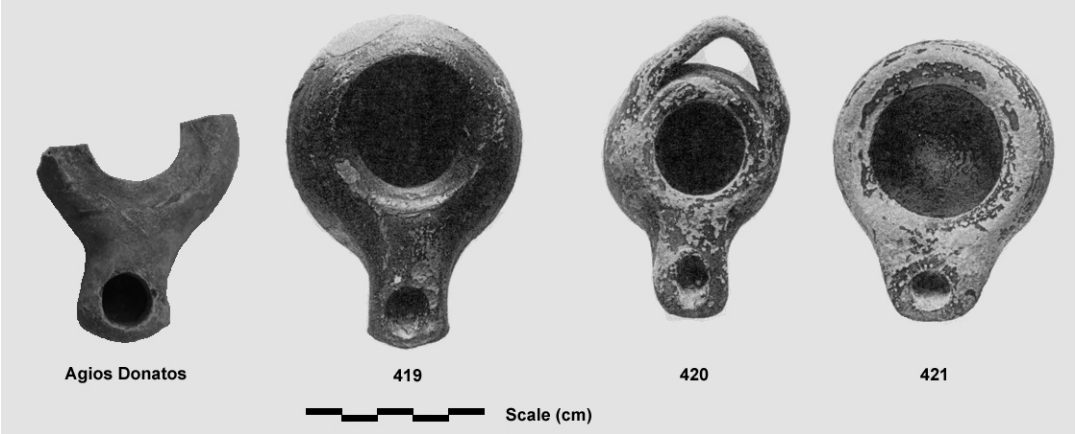


Fig. 41. Comparison between the lamp from Agios Donatos and Howland's Type 30b in the same scale. (Numbers 419-420 Howland 1958: Plate 41)

The oldest of the four coins is a Corcyraean coin, with an amphora and letters K..Ω on the obverse side, while on the reverse side there is a bunch of grapes and letters Σ…Ω (Fig. 42). Such coins are dated to 399-300 B.C.

(BMC Thessaly: 123-4 no. 156-160, pl. XXII no. 11; Grose 1926: 279 no. 5228-9, 190 no. 17; SNG Cop. 163 ff.; SNGuk_1301_0240).

Fig. 42. The Corcyraean coin from the tower of Agios Donatos (left) and a comparison (Right). Left pair by E.Tikkala, right BMC Thessaly: Pl. XXII no. 11.

The second is a Cassopaian silver coin with a profile of a bearded Dionysos with the word ΑΠΕΛΛΑ on the obverse side, while the reverse side has an amphora, a worn wreath and clearly legible letters …Ω..ΙΩΝ (Fig. 43). Originally the text on the obverse side would have read ΚΑΣΣΩ…ΠΑΙΩΝ. Such coins are dated to 215-195 B.C. (BMC Thessaly: 99 no. 13; Franke 1961: 79-80, Plate 8 V51-R79, 55, V55-R84; SNG Fitzwilliam III: Pl. XLVII no 2599; SNGuk_1301_0230).

Fig. 43. The Cassopaian coin from the tower of Agios Donatos (left) and a bad comparison in SNG Fitzwilliam (right). Left pair by E.Tikkala, right SNG Fitzwilliam: Pl. XLVII no. 2599.

The third coin has a profile of a man on the obverse side and a centaur holding some object in his hand on the other side (Fig. 44). The reverse side also has some lettering and a monogram 𐤐 under the centaur's raised leg, but they are nearly illegible. On the basis of the centaur and the monogram it is possible to determine that the coin originates from Bithynia in Asia Minor. One such coin has been found in the Athenian Agora. Other parallels can be found in BMC Pontus and in the SNG Copenhagen. Based on the parallels the coin was struck during the reign of king Prusias II, between 183 and 149 B.C. (BMC Pontus: 210 no. 14, Pl. XXXVIII no. 5; Kroll 1993: 256ff, Plate 29 no. 862; SNG Cop.: Pl. 16 no. 641.).

Fig. 44. The Bithynian coin from the tower of Agios Donatos (left) and a parallel. The monogram in the parallel photo is different. Left pair by E.Tikkala, right BMC Pontus: Pl.XXXVIII no. 5.

No clear evidence of the fort's abandonment or downright destruction was uncovered during the excavation as no clear destruction layers or large charcoal deposits were found. Some charcoal was found in the lowest layers of the tower, but not enough to give a clear identification of destruction layer. However, it would seem most logical that this fortress was also destroyed as one of "seventy oppida" razed by the Romans in 167 B.C. The neighbouring fortified city of Elea has clear evidence of its destruction and no later signs of occupation.

Agios Donatos has clearly had a second period of use in the Roman period, as testified by the numerous finds of fine red *Terra Sigillata* table ware with a

“foot stamp”, *planta pedis*. So far the identified sherds belong to vessels manufactured in central Italy, and most of them can be dated to the first half on the first century AD (Ikäheimo 2006: 114-115.) Also to this later period can be ascribed the fourth coin depicting either Hadrian’s wife Sabeina Sebasti or Antonius Pius’ wife Faustina junior. (SNG Fitzwilliam IV: Plate XXXII no. 1789; SNGuk_0402_1789). In either case the coin is to be dated to the second century AD. It is known that during the Roman times the new masters of the area founded a colony, Photike, close to Paramythia. Perhaps Agios Donatos was also settled by the new emigrants from Italy. (Forsén 2006b: 25.)

4.2. Function and type of settlement

Why would anyone have built such a dense network of fortified sites in such a small valley, as the fortress building must obviously have been very expensive? And why build the fortress of Agios Donatos on this spot with obvious weaknesses when there are other far better sites in close proximity?

The ridge on which the fort stands is not a particularly high one, and to the east of the site there are several higher foothills of the Paramythias range which could threaten the defenders of the site if held by hostile forces. The general layout of the enceinte, with long straight stretches of walls on the southern hillside and absolutely no flanking devices in the western half of the fort to protect the curtain in case of escalade attempt, and other obvious weaknesses in defense of the site make one wonder. The greatest single lack in design of the fort is its water supply or the seemingly total lack of it. Although there are numerous springs high up on the foothills of the Paramythias range, leading the water from them into the fortress seems impossible. The whole fort seems to have been founded directly on the bedrock with not enough soil covering to hide a water pipe inbound from outside the walls. Leaving the watercourse visible, above the ground, is obviously not a choice either as the enemy would cut or try to poison it immediately. But the site doesn’t even seem have a rock-cut cistern to store

rain water which is strange. Local climate is relatively rainy for Greece so it would have been possible to store rain water. It seems that the fort was densely packed with buildings so using the roofs of the houses to collect rain water to pithoi could have been an alternative. But most likely that wouldn't be sufficient anyway especially with no large central cistern on site to store the water, or at least there are no visible traces of one. Even the largest pithoi or other vessels could store only limited amount of water and in the event of a siege that would lead to the fort surrendering within a few days.

The closeness of another fort, Kioteza, less than a kilometer south of the site is also strange. Kioteza occupies a stronger defensive position isolated on its precipitous peak, requiring only two short sections in the eastern and southern sides to have artificial defenses. The site is extremely badly destroyed but it seems that the tower at the southeastern corner was built of ashlar blocks, whereas the masonry in the curtains seems to be polygonal. As such, the masonry resembles Agios Donatos somewhat and it could be possible that both are of the same period. There is no way to be sure, however. Why did the builders of Agios Donatos go through such an effort to fortify a less defensible hill site, if indeed Kioteza is older than or even of same age as Agios Donatos? To the north the large enceintes of Elea and Paramythia are also within sight distance. Why then build a fort in such a location, what purpose did it serve?

First of all, the Eleaoi inhabited the wealthiest area in the whole of Epirus, first gaining wealth through exporting goods from their rich area to the Corinthian traders (Hammond 1967: 557, 579). Secondly, the Kokytos valley must have been an important land route from the port of Eleaoi on the Glykys Limen, modern Ammoudia, towards inland. One difficult route went by the high pass known as Kake Skala, to the north of modern Paramythia, and the other, easier, descended from the northern end of Kokytos valley down to the valley of Kalamas, which was one of the most important routes inland. Travelling up the Kalamas one would eventually end up to the plain of Ioannina with the major Molossian sites of Passaron and Tekmon. From there the route went on to Macedonia, crossing the Pindus range. All major

river valleys in southern Epirus have a dense network of fortifications covering the routes inland, as well as river crossings or fords. For instance, Kalamas has been protected with a chain of no less than fifteen fortified sites in addition to the major city of Gitane (Sakellariou 1997: 103).

When taking these factors into consideration, the location of Agios Donatos and the closeness of other fortified sites is not exceptional. The major sites of the Eleaoi were concentrated at the upstream end of Kokytos, in Paramythia and Elea, both of which are large enceintes (Hammond 1967: 582). One important factor for placement of all the fortresses in the Kokytos valley is the availability of water. Peculiarly, in the Kokytos valley the juncture between limestone and flysch runs along the mountain slopes. This juncture is marked by several abundant springs high up on the slopes of Paramythias range, thus favouring foundation of high-lying sites. Flysch comprises of variety of sandstone, conglomerate, marl and clay. This formation is rich in water as well as very fertile, enabling pastures or woodland to thrive on it. The whole area actually comprises of one flysch formation bordered by limestone cliffs running NNW to SSE in the eastern slopes of the valley, starting near Paramythia and ending again near Glyki. (Hammond 1967: 6, 70.) Thus all forts in this valley have been built on the eastern side of the valley and none on the western hills.

Earlier survey projects carried out in the 1980's and 1990's in northern Laconia, in the Argolid and in the Asea valley in the Peloponnese developed a three-tiered site hierarchy for the different sites they discovered. The Southern Argolid survey was the first to develop such a system. Habitation sites were categorized as towns, habitations, farmsteads or fortifications. For a site to be considered a *town*, it had to be large (5 ha or more), possess city walls, sanctuaries, cemeteries and built-up area inside the walls. *Habitations* included hamlets, villages and the like. Their size varied between 1.0 to 5.0 ha, and they had to include architectural remains from more than one building. *Farmsteads* were the smallest units, smaller than the others, with finds associated with rural activities. *Fortifications* were

regarded as large enclosures with no large permanently inhabited area. (Jameson, Runnels & van Andel 1994: 249.)

The division was later adopted and further developed by other survey projects. According to the Asea valley survey, depending on the size, a site could be small (0.05 – 0.5 ha), medium (1-4 ha) or large (over 10 ha). The smallest represent single farmsteads or the like, the medium ones hamlets or villages and the largest represent towns or even *poleis*. For a site to be a polis it should be large (>5 ha), have cemeteries, fortified walls and within them, sanctuaries and structures for habitation. In addition it should be identifiable from historical sources. Finally, the Laconia survey used roughly the same size limits for its sites, but the medium category sites were divided in to two different categories; hamlets and villages. A hamlet, according to them, is a cluster of households whose inhabitants are engaged in farming, with no internal social hierarchy. The size of a hamlet varies between 0.4 to 1.5 ha, depending on the number of households involved. (Cavanagh et al. 2002: 163, 193; Forsén & Forsén 2003: 260.)

According to these divisions one can see that Agios Donatos (1.1 ha), Kioteza (0.4 ha) and Paramythia (3.5–4 ha) as well as Ephyra (4.2 ha) have not been actual poleis but outposts of the major site, Elea (10 ha) (Dakaris 1972: 141, DNP 3: 963). Of these, Elea is clearly the sole polis of the area, fulfilling all the requirements. All the other fortified sites in the valley fall into the middle category when one takes their sizes into consideration. Paramythia could have housed quite a considerable population within its walls, whereas Kioteza is so small as to being just a military installation without any permanent inhabitants.

On the other hand, there might not have been any actual polis system in the usual Greek sense in Thesprotia, but a system of its own. A somewhat similar situation with a few large sites and several fortified settlements of considerably smaller size situated high on the peaks and slopes of hills in close proximity to each other has been noted to having existed in Lycia in modern southern Turkey during the Archaic and Classical periods,

preceding the more standard Greek model poleis of Hellenistic period. A German survey project under Frank Kolb has been conducting archaeological research in the territory of the Lycian town of Kyaneai since 1989, covering 106 out of 136 square kilometers of the Kyaneian territory. Found within the territory there were eight large fortified settlements, 70 smaller settlements, five fortresses without settlements and 430 farmsteads, out of which 77 consisted of a central tower complex surrounded by other buildings. In addition there were a large number of other smaller sites with a rural function, but they need not concern us now. The largest settlements such as Kyaneai (4 ha), Düzkale Tepesi (4.4 ha), Trysa (2.5 ha) and Avşar Tepesi (14 ha) are truly large while other settlements such as Hoyran and Tyberissos have an area of approximately one hectare, comparable to Agios Donatos. (Kolb 1995: 193-194; Kolb & Thomsen 2005: 7-9.)

According to Kolb in Lycia there was no actual polis system before the Hellenistic period, but an institution of its own. Before Kyaneai was founded in the late fourth century, the first large center was formed around the dynasty settlement (Dynastensiedlung) of Avşar Tepesi which was abandoned when Kyaneai took its role. In the Archaic and Classical periods Avşar Tepesi was the administrative and religious center of the area, but it was not a town as such. The aristocracy preferred to live at their own large estates and fortified manors around the center rather than within it. The site was founded at an important crossroads of land traffic arteries, both in the east-west direction as well as south-north direction, from the harbour in the south towards inland. Near the southwestern border of the territory there were strongly fortified tower estates, and near the western border a number of other defensive structures and refuges (Fluchtburg). Other types of settlement included a village around a nobilty estate (Herrensitz) or aristocrat's fort (Adelsburg). Kolb calls such a system "polis of a Lycian kind" (Polis Lykischer Prägung). (Kolb & Thomsen 2005: 15, 22, 26-33.)

Around the 360's there was a political reform in the area when Mausollos of Caria gained the satrapy from the Persians. The old dynasty rule ended, and a new polis system based on a Greek model was introduced. Six of the old

centers developed around the dynasty estates, including Avşar Tepesi were abandoned and the new polis of Kyaneai was founded. However, the Hellenistic nobility still preferred to live at their tower estates and smaller centers around the territory. (Kolb& Thomsen 2005: 34, 37.)

There are some interesting parallels with Lycia and Thesprotia, although due to the distance and difference of cultures between the two sites they could not have been of common origin. First of all there is the large number of sites within a close distance from one another, many with fortification walls. Secondly, many of the larger settlements are of approximately same sizes as in Kokytos valley, with a few sites of 2.5 to 4 ha while a couple of sites have an area of around one hectare. Most interestingly, a typical aristocrat's fortified farmstead or a central structure of a small hamlet in Lycia consists of a strongly built square tower with additional buildings around it. Such a plan bears a close resemblance to the Nekyomanteion, a small but strongly fortified site with immensely strong central tower of square shape. Naturally there are also differences between the two areas. Whereas most of the fortified Lycian sites are of late Archaic or Classical date, the Thesprotian fortifications are of late Classical date at the earliest.

If the Lycian situation is projected on the Kokytos valley, one could think that Paramythia and Elea are the major urban centers of the area, Nekyomanteion a nobilty estate (Adelssitz) and Kioteza a pure defensive fort with no actual inhabitants. Agios Donatos is more difficult to determine, as it could have been a number of things. There are remains of houses within the fortified area, so it could have been a fortified village. The fort is also situated relatively close to the floor of the valley, so it could have acted as a place of refuge for the surrounding country population (Fluchtburg). Finally, land traffic routes seem to have skirted the fort near its eastern end, so it is also possible that Agios Donatos was built to control the traffic bound for the central areas near Elea and Paramythia.

As the site is relatively large (1.1 ha), it probably could not have been a nobility estate unless the builder was extremely rich. However, architectural

blocks originating from some sort of monumental structure were found on the lower slopes of the ridge. In addition, there are some fifty re-used architectural blocks or fragments, including parts of epistyle or a frieze, built into the chapel walls. The fragments seem to originate from a finely built monumental structure, which most likely was not a temple due to irregularities and anomalies observed in the frieze fragments. The blocks included two voussoirs, originating from an arch of approximately 2.5 to 3 meters in width. Such blocks could not have been used in the gates of the fortress as they are narrower, only 1.9 to 2.0 meters wide. E. Tikkala suggested in 2006 that the fine blocks could originate from a Macedonian style chamber tomb with a temple-like façade and a barrel-vaulted tomb chamber, which usually is approximately three meters wide. There is a barrel-vaulted tomb chamber nearby, at Kassope, with similar dimensions. If there was a monumental tomb at or close to Agios Donatos, it could have belonged to a wealthy aristocrat owning the site, perhaps even the individual responsible for building the walls. (Forsén & Tikkala 2006: 100-105). All beforementioned explanations for the purpose of the fortress are possible, although the last one is difficult to prove beyond a doubt. The site's defensive character is most obvious, so a normal village surrounded by massive walls of this calibre seems the least possible explanation.

Could it then be that there was some sort of territorial defense system in the valley, with the fortresses forming an interlocking chain which could block the advance of hostile troops altogether? J. Ober suggested in 1985 in his book *Fortress Attica* that the inland fortresses in Attica constituted just such a territorial defense mechanism being located on the main passes leading to Athens. No enemy could advance into Attica without first dealing with the fortresses in his path, as passing by and leaving the fortress intact could be dangerous. In case of losing a battle the retreat would be closed by the troops housed in the forts. Most importantly the attackers' supply train could be seriously threatened by the forts in the passes. (Ober 1985: 199-204.)

A different view to the existence of such a system was published by M. H. Munn in *Defense of Attica. The Dema wall and the Boiotian War 378-375*

B.C. published in 1993. He points out that often the forts have a civilian settlement at a close proximity. Whereas the city was the real retreat for the country folk, the garrison forts could be used as safekeep of property and outlying population. Forts' placement depended more on the communities and their economic resources than on strategical requirements. The forts could not actually stop the enemy's advance. Besides, only in Eleutherai did the road run close enough to the fort for the defenders to be able to fire upon it. The forts acted first and foremost as points of refuge for the population in the vicinity as well as their property. No actual defense network existed, instead the forts acted as independent nodes of local security against small raiding parties. (Munn 1993: 16-27.)

As mentioned before, the fortified sites in Epirus seem to form chains in close proximity to the major traffic arteries, namely the rivers and river valleys. It is known that the old road from north to south ran along the foothills of Paramythias range. It was used at least in the Turkish times, and a well of the same date can indeed be found in close proximity of the fort, only a few dozen meters east of the tower. An old satellite image (Corona) reveals that there could have been several different old roads here, possibly confluencing not far from the fort. The Corona image in question was taken on May 27th 1972, and a detail of the image (Fig. 45) clearly shows several routes to the south of the fortress which is also clearly visible. To the north of the site a single wider road leads northwards. This stretch of road is still in use, leading to the chapel .

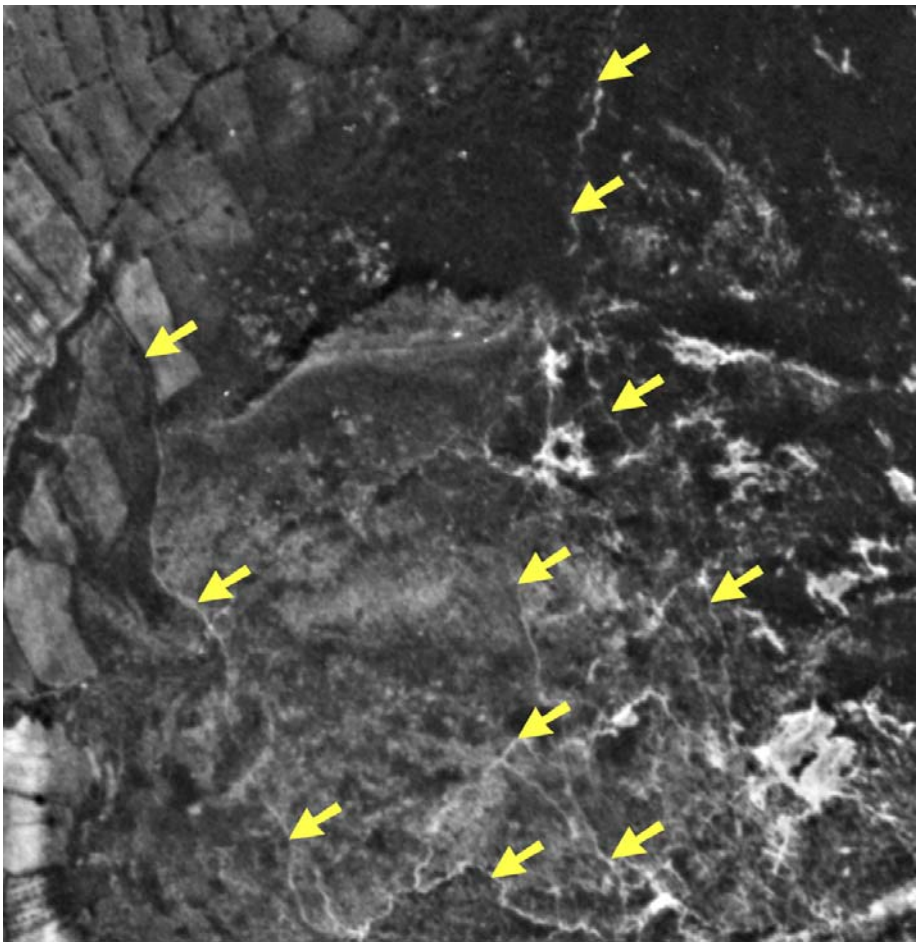


Fig. 45: The old roads close to Agios Donatos, traced by arrows at intervals. The fort itself in the middle, slightly above the midpoint with the chapel clearly visible as a white spot. North in the upper corner, Kioteza invisble just to the south. (Detail of CORONA image, May 27th 1972)

Some of the roads visible in the image might even have been used in the Hellenistic period as all the fortified sites have indeed been located up on the western foothills. Later it is known that during the Roman and Byzantine times the roads in the valley were located at the valley floor, running from Photike, close to Paramythia, to Glyki in the south, from one basilica to the other. (Forsén 2006.) One of the high passes leading westward from the Kokytos valley to the valley of Souli can be found fairly close, only a couple of kilometers to the southeast of Agios Donatos. It is possible that both the fort of Kioteza and the one on Agios Donatos were built to cover these roads, Kioteza the upper road from the pass northwards and Agios Donatos the confluence area of different roads from the south, the ones located lower on the foothills. As there are not as many roads visible to the north of the

site it might be possible that the main road leading to the main gate of Elea has followed at least partly the course of the modern road to the chapel, and was perhaps destroyed by the modern version. An old map shows some of the roads leading across the mountains from Souli (Fig. 46).

If this is the case, the reason for building a fort with a strong tower facing uphill might be explained. The confluence of different roads from the direction of Souli and from the south, Glykys Limen and Cassopaia, might have been considered important enough to place a fort with the stongest side pointing towards the road, quite possibly the main traffic artery of the whole area (Figs. 47 & 48). The Kokytos hardly was any more navigable than today, leaving the land transport as the only option. Also noteworthy is the fact that the villages in the area were built on the slopes of the mountains, until in the 1960's they were quickly moved to their modern places on the valley floor. The habitation pattern seems to have been similar during the time when the fortress was built, with the major urban centres on the foothills of the eastern side. Perhaps the living conditions down on the valley floor weren't healthy. We know that at least near the Nekyomanteion at the lower Acheron valley and the Acherousian Lake the climate used to be malaric well into the 20th century. Perhaps it used to be somewhat similar here, only some 40 kilometers north.

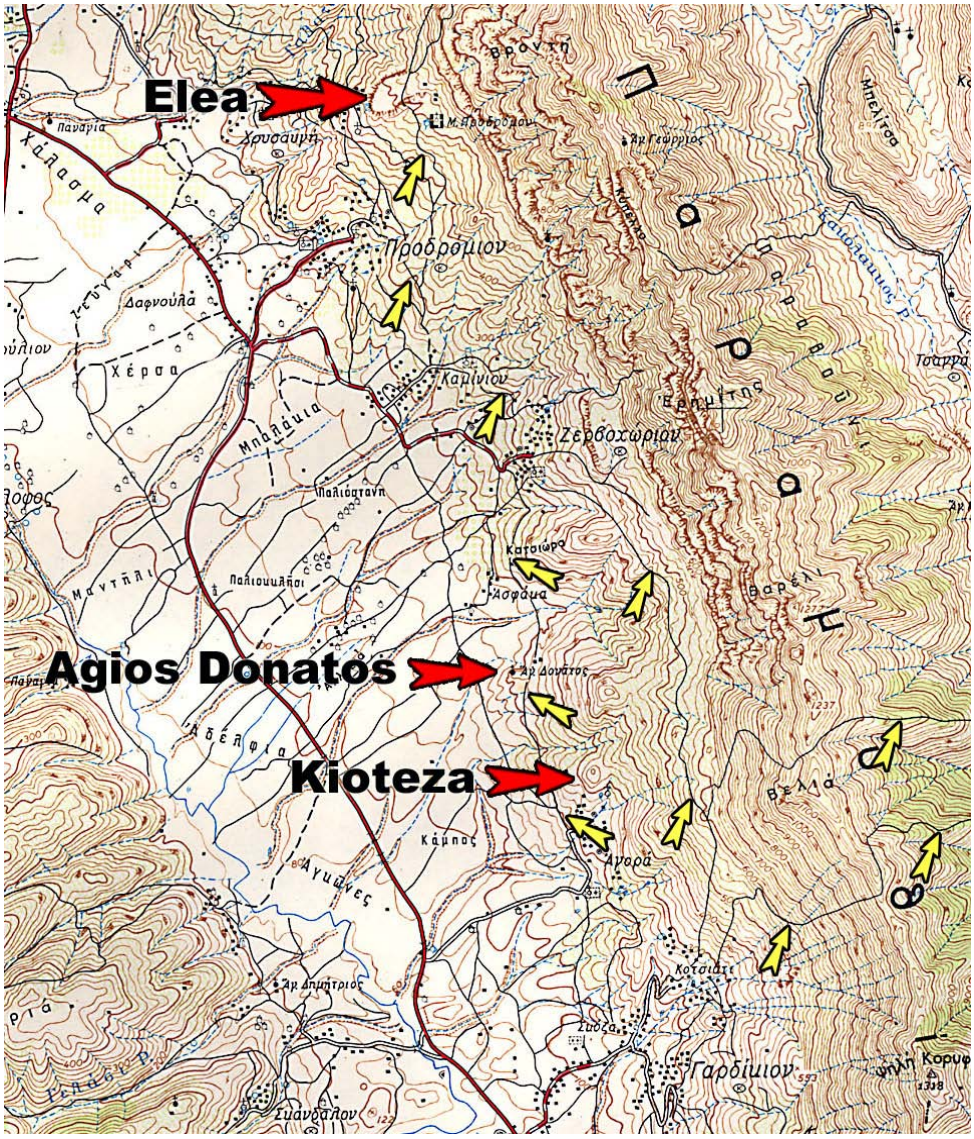


Fig. 46. Detail of an old 1: 50000 scale map showing the old roads across the mountains leading to modern Gardhiki (Γαρδίκιον). Other mountain roads along the slopes are also visible, marked by yellow arrows.

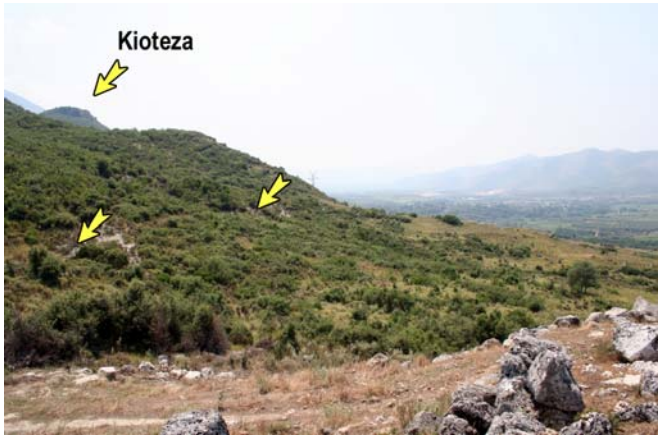


Fig. 47. View south from the tower of Agios Donatos. The fort of Kioteza can clearly be seen. The other arrows point the course of the old road, now obscured by vegetation.

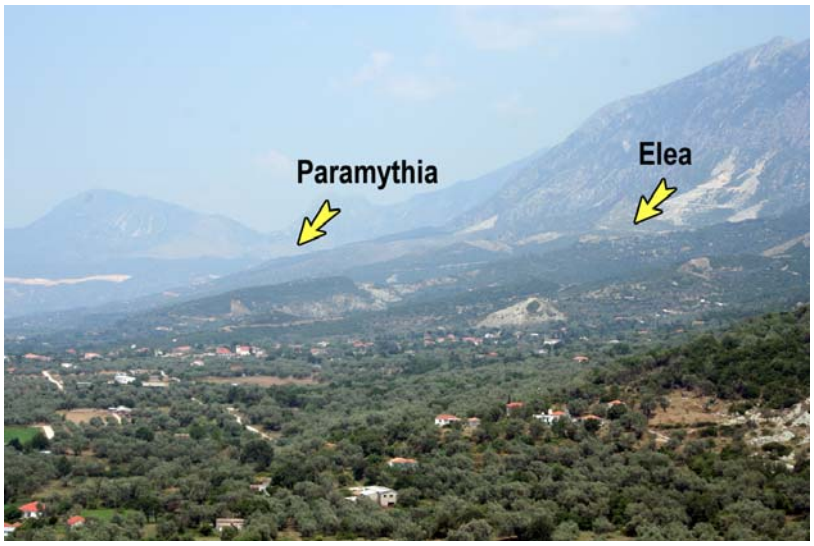


Fig. 48. View through the north-eastern gate towards north. All the other forts of the valley are clearly visible from Agios Donatos.

The uphill side of Agios Donatos does indeed look like it would have been built to control the road: Here, contrary to the many of the forts in Attica's passes, it would indeed have been possible to fire upon the road in the immediate proximity - only a few dozen meters away. Both of the gates open to the road, the strong tower is pointed to the road and the whole length of curtain on the eastern side is curved, no doubt enabling unhindered firing arcs along the road for at least some one hundred meters if one does not take the modern bushes into consideration. All the other fortified sites of the valley can clearly be seen from the fort, so some sort of communication system between the forts could also have been possible.

One must also not forget the other obvious motive to build this enceinte to such a position: The use of the fort as a refuge for the outlying population. Major fortified sites of Elea and Paramythia are a good distance away, too much in a case of emergency. South of of the curtain the ground is relatively flat before rising to the next low ridge parallel to Agios Donatos. This has been suspected to having been the "lower town" or the actual village grown in the vicinity of the fort. Unfortunately the valley is completely overgrown with dense vegetation, making it extremely difficult to find any material on the surface. Thus it is impossible to say with certainty whether there was any Classical-Hellenistic settlement there.

5. Conclusions

Based on parallels from different areas of the Greek world, and especially the nearby sites such as Nekyomanteion, other sites in Thesprotia and the enceintes on Kephallénia it seems that the dating of fortress of Agios Donatos can be determined with some accuracy. As difficult as it is to use masonry styles as guides for dating a site, especially the Kephallénia survey could provide some assistance. Randsborg's masonry types 8, 9 and 11 correspond closely with the masonry of Agios Donatos where all are found in the one and the same enceinte. Some features in the enceinte such as the bonding of tower walls with the curtains and the similarity of masonry throughout the enceinte despite minor stylistic differences in places, point to the fact that the whole enceinte was constructed in the one and the same phase. The small differences in masonry style in the eastern edge versus elsewhere can be explained by different masonry gangs and the shape of available blocks, quarried on the spot.

In my opinion Randsborg's suggestion of types 8 and 9 as being dated to around 300 or the first quarter of the third century is plausible also in the case of Agios Donatos. Type 11 is less accurately dated, but still falls in with the dating range of other types. In Epirus the early third century is the time of king Pyrrhus and the first peak of fortress building activity. The population of the wealthy Elaeatis would have had the resources and the will to fortify the approaches to their central area near the town of Elea and castle of Paramythia, and the expanding international trade would have brought even more wealth on the area especially as Elaeatis possessed Glykys Limen, the only port in the vicinity. The major route from the port of Glykys Limen to the plain of Ioannina with the major Molossian towns of Passaron and Tekmon would logically have gone north through the Kokytos valley to the valley of Kalamas and from there onward. The major cult centre of Dodona was also fairly easy to reach from the Kalamas valley or even through the high passes in Paramythias range and its neighbouring range on the other side of the Souli valley.

The masonry in Agios Donatos is medium sized polygonal, with corners approaching irregular ashlar, and this was the style that Hammond dated to 280-230 B.C. The same features were classified by Randsborg as types 8, 9 and 11, with a tentative dating from 300 to 275 or even 250 B.C. The construction of narrow tower walls without central fill has a parallel in Butrint, dated to 290's-270's. Nekyomanteion's similarly built third phase walls are also dated to the early third century. Other parallels seem to point to the same period, such as the almost exactly similar tower in Kydna. Thus I suggest that the fortification walls on Agios Donatos Zervochoriou were most likely built during the last decades of the fourth century at the earliest, though most likely in the early third when Epirus was becoming powerful and Pyrrhus' fortification building activity was at its height.

There is only faint evidence on the later Hellenistic stages of the fort, mainly the two coins of the 2nd century B.C. and the Ambrakian coin repoterd by Hammond and Dakaris. Most likely the fortress was used until 167 B.C. At that time Thesprotia was laid waste by the Romans who destroyed some 70 "oppida" in the region. No clear evidence of destruction or burning of the fort was found, but one would think that no fortified enclosures were left unscathed at that point. If the fort was destroyed by the Romans it still seems that at least the tower remained partly standing. During the Roman period the fortress site and especially the tower seem to have been re-used somehow. The survey and cleaning operations on the site in 2005 yielded several pieces of fine, thin Roman glass, as well as several pieces of fine Terra Sigillata ware. Of these at least the Terra Sigillata can be dated to the first century AD. Rough Roman cooking ware was found in all cleaned sectors. The excavation in 2006 yielded similar results, revealing also that the excavated areas comprised almost entirely of layers of collapsed material. Most of the finds seem to be dated to the Roman period even in the deepest parts of the tower trench. However, mixed in with the Roman material there were occasional finds which could be dated to the Hellenistic period such as the lamp fragment and most of the coins.

The lamp and the Corcyraean coin found from within the tower could be connected with the actual building period of the fortress, while the Ambracian, Bithynian and Cassopaian coins are connected with its use during the Hellenistic period. Finding a Corcyraean coin here is not surprising as Corcyra is located only a short distance to the west, and during the reign of Pyrrhus it was even a part of Epirus for a short while. The Cassopaian coin is even less surprising, as the Cassopaian territory is the neighbouring area to the south. Ambrakia, the capital of Epirus during the reign of Pyrrhus, is not far to the south either. The Bithynian coin can be explained as been brought here through sea-borne trade, which is not surprising as the harbour of Glykys Limen was located only some thirty kilometers to the south.

All the dating criteria have been summarized in a graph below, Figure 49. The faint blue area represents the building date suggested by me, starting from the final decades of the 4th century with no actual well defined year. The large number 167 represents the year of the Roman destruction of Molossia and Thesprotia.

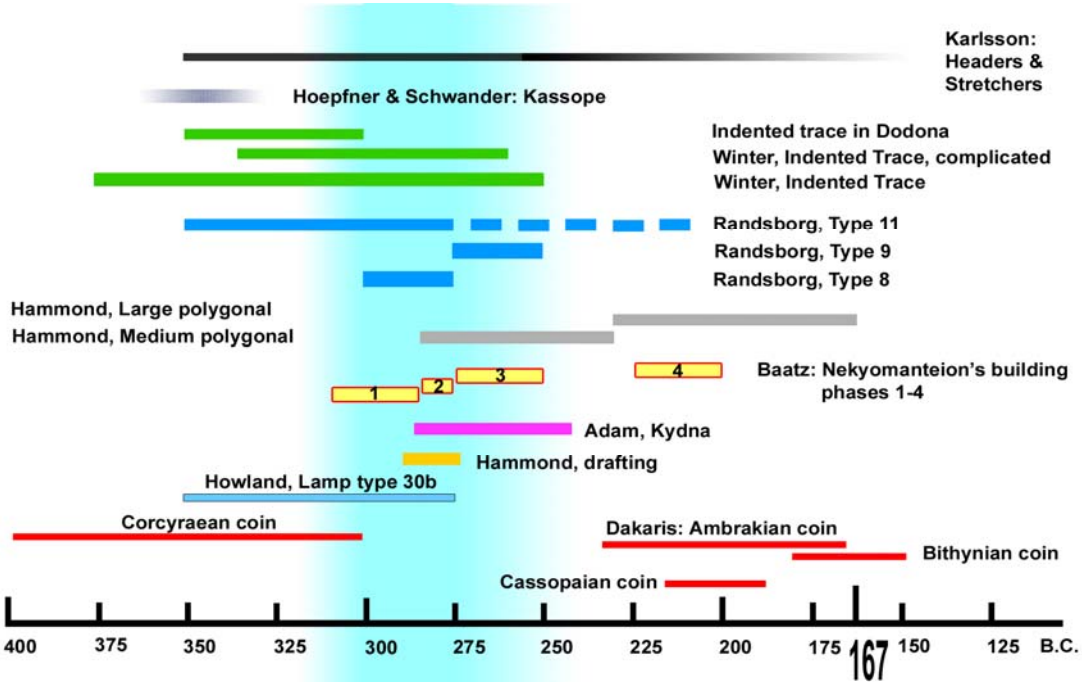


Fig. 49. The dating criteria presented in a graph. The faint blue area on the background represents the most likely building date of Agios Donatos.

The reason for building this fort at this particular location might be explained with the transport routes. Different roads from the southerly direction could have had their confluence near Agios Donatos. The main road from the south towards the central city of Elea skirted the fort's eastern edge where the defenses are at their most formidable with a strong tower, two sawtooth jogs and both of the fort's gates opening in the direction of the road. The western extremity of the fort could be used as a watch post looking in the direction of the valley, and as the other fortified sites are all well visible from Agios Donatos, communication between all the sites would have been possible. Despite the fact that the fort was built in the middle of the territory of Elea, close to a road, it hardly was designed to be a piece in an actual territorial defense network, as was suggested having existed in Attica by Ober. If there was a settlement in the so called lower town, it most likely developed there as a consequece of the fort being built rather than the opposite way around, the same as was later proved by Munn to have been the case in Attica. There is no doubt that the second major function of the fort was that it offered protection for the nearby country population and their property in times of danger. Quite a crowd could have been possible to be taken inside the walls, but as there is no clear indication of the water supply the fort could not have withstood a determined siege for more than a matter of days. The other obvious weaknesses in the design of the defenses also point to the fact that here was a fort which was not even *meant* to be besieged by a determined attacker, who would in any case most likely have concentrated their efforts on the central sites of Elea and Paramythia rather than wasting time on this small "police station" or peasantry place of refuge.

Appendix

Fortified sites in Thesprotia and nearby areas

Into this appendix I have gathered the data from the other fortified sites and claimed fortifications in the nearby areas, mainly the river valleys of Acheron and the Kalamas. Some of the sites I have been able to visit personally, and it has been possible to confirm whether or not they are Classical-Hellenistic structures or if indeed they even are fortresses or just a natural phenomenons. Some of the sites are only shortly and obscurely mentioned in the literature but no exact knowledge of them exists. This appendix does not include all the fortifications in the southern Epirus. No sites in the Louros valley have been included due to the size of the area.

First I shall describe the sites which I have been able to personally visit during the three field seasons of the Thesprotia Expedition. This first category consists of sites with ancient remains in sight, sufficiently clear to make a rough estimation of the site. These include the central sites of the areas such as Elea, Kassope and Gitane.

The second category consists of sites *rumoured* of possessing some remains of ancient fortifications. Visiting these sites showed that they are not what they have been claimed to be, turning out to be either natural formations or villages with no clear indication of ancient fortification walls.

The third category consists of sites which I have visited personally, but despite the information given I can not confirm if they indeed belong to the Classical-Hellenistic period. They are either so badly destroyed that it is nearly impossible to say anything of them or the method of their construction is strange, thus not meriting the dating into the correct period. These sites include the sites in the valley of Souli.

The fourth category of sites consists of sites which I have not been able to visit personally, due to not knowing where they are located. Most of these sites are mentioned in literature, such as in Hammond 1967 and Sakellariou 1997. The problem with these sites is that they are only named after the modern villages in the area of which they are located. No *exact* location of the site in the area of the village can be found however, for instance in Sakellariou. Thus it has been impossible to check their validity. These sites might not even belong into the right period: Some of them might date from the bronze age whereas some can be dated to the Turkish period. The sites are dealt in order, the first ones are located in the Kalamas valley while the following are found in the upper reaches of Acheron. The final category consists of only one site, Gardhiki. I have visited there, but the site is definitely not ancient.

Knowledge on the size of sites and any additional information that I have not been able to collect personally has been collected from literature such as Hammond 1967, Dakaris 1972 and even Sakellariou 1997. The numbers of sites refer to **Map 3**.

1. Visited and confirmed fortified sites dating to the Classical/Hellenistic period:

Site #	Name	Walls	Size	Comment
1.	**Paramythia**	Polygonal, mostly mortared rubble	3.5 – 4 ha. Circuit ca. 2100m	Also known as *Agios Donatos/Aidonat/Phanote.* Old village of Paramythia with Byzantine/Turkish city walls, used until the early 19th century. Some traces of Hellenistic polygonal masonry in the SE and NW sectors. Two ancient gates. SE gate a subterranean cave entrance with portcullis grooves according to Hammond. Intact postern gate in the NW. Preserved ancient masonry has similarities with Agios Donatos.

2.	**Elea**	Polygonal, irregular ashlar	10 ha.	*Ancient Elea* .No clear indication of later occupation. Large tower, ca 6 m square in the NE corner, two posterns in the N and NE walls, main gate in the SW sector, opening towards valley floor. Masonry in some stretches and especially in the upper parts of curtains has similarities with Agios Donatos.
3.	**Agios Donatos**	Polygonal	1.1 ha.	Hellenistic walls in S and E slopes. Tower, 7.3 x 5.6 m in the E, two gates in the NE and SE. Traces of later buildings with mortar all over the hillside, a niche carved in the rock. Buildings concentrated on terraces, especially above the 17th century chapel.
4.	**Kioteza**	Polygonal, ashlar	0.4 ha	Extremely badly destroyed. Scanty traces of walling in the S and E slopes, only one layer of stones remaining. Walls polygonal, the tower in the SE corner ashlar. Possibly 2 gates, in the E and NE, beside a great boulder fashioned to receive blocks?
5.	**Kastri**	Polygonal, irregular ashlar	13 ha.	*Ancient Pandosia*, originally an Elean colony. 4th century walls? Three consectutive circuits with polygonal masonry. 22 towers ca. 6 m square, solid, with internal crosswalls. Good quality masonry, with a level upper edge: Stone socle, possibly mudbrick superstructure? Compartmented walls, ca. 3 m apart.
6.	**Nekyomanteion**	Polygonal	0.24 ha.	”Oracle of the Dead”, more likely a small fort or a fortified farmstead with strong central tower. Several construction phases, ca. 300-2nd c.

				BC. Destroyed in 167 BC. Good quality masonry with level topsides: The upper superstructure was made of sun dried mudbrick. Three consecutive gates and storage areas.
7.	**Ephyra**	Rubble, cyclopean, polygonal	4.2 ha	*Ephyra or Cichyrus*. Modern *Xylokastro.* First occupation in the late Bronze Age, also used in the Hellenistic period. Visible remains cyclopean/low quality polygonal masonry. Gate in S, width 2.3 m.(PECS: 310)
8.	**Kassope**	Polygonal	Circuit 2800 m. = 30 ha.	City walls ca 350 BC. High quality polygonal masonry in the W, S and E sectors. Two gates in E and S sectors, in W an intact corbelled postern. Masonry in the W wall has similarities with Agios Donatos.
9.	**Dhimokastro**	Polygonal	15 ha	Also known as *Vemokastro*, *Perdhika* or *ancient Elina*. On a 200 m high cliff overlooking the ancient harbor site of Karavostasis, now silted completely: Today a beach of the same name. Second harbour, Skala Ellenikou to the west. High quality masonry, some features comparable to Agios Donatos. 6 square towers. One clear gate in the SE. Gate and some of the masonry resembles Agios Donatos.
10.	**Torone**	Polygonal?	-	*Lygia* or *Lygaria A-C.* Actually comprises of three forts (A-C), but only the easternmost (A) was accessible. Four semicircular towers, badly destroyed, only 1 layer of stones visible.
11.	**Pyrgos Ragiou**	Polygonal, trapezoidal	Circuit 250 m	Turkish tower built on ancient foundations. Ancient fort roughly pentagonal in shape, 3 towers,

				located at corners. Outpost of Gitane?
12.	**Gitane**	Polygonal	Circuit ca. 3000 m =28ha.	*Gitane/Titane/Goumani*. Major city with a dividing wall inside the city wall, 4th century. On a spur between Kalamas and its tributary. (PECS: 364) 10 towers including a large semicircular battery. 4 gates in the outer wall, all with internal crosswalls. South sector with indented trace, no towers. Diateichisma with 3 gates. 5 towers, hollow ground storey. Level tops on the walls: Mudbrick superstructure?
13.	**Doliana**	Polygonal, thin slate rubble	Circuit 550 m 5.3 ha.	*Ancient Phanote*. Walls everywhere except the steep southern side with the ravine of Kalamas. Gateway with a true arch, voussoir blocks found in situ. Remains of wall and towers in the E stand still to a considerable height. Some walls are built of slate rubble: Maybe later repairs?

2. Visited sites, no Classical/Hellenistic fortifications despite claims

Site #	Name	Walls	Size	Comment
14.	**Liminari**	-	-	Natural feature, local bedrock forms ”walls” when weathered the right way. Satellite photo shows a round feature, actually weathered exposed bedrock.
15.	**Choika**	Mortared rubble	?	Village. Houses built using mortar (ie. later than Classical-Hellenistic). No clear fortification walls.

3. Visited sites, in bad shape or otherwise difficult to determine

Site #	Name	Walls	Size	Comments
16.	**Mamakou**	Rectangular: Ashlar/Natural blocks?	**?**	Also known as *Ellenika*. In extremely bad shape, only a few blocks remaining. Impossible to say about gates or towers. Guards conjunction of rivers and three paths (Hammond 1967: 75.). Could be Classical/Hellenistic?
17.	**Frosini**	Rubble, slate	**?**	Oval rubble fort, built of slate throughout. No clear gates visible. Most likely not Classical/Hellenistic. Opposite to a high pass leading towards Elea.

4. Not visited or found. Claimed by others to be Classical/Hellenistic

Site #	Name	Walls	Size	Comment
18.	**Cap Cheimerion**	Medium polygonal, inner fort ashlar	400 x 40 m	Hammond 1967: 63-4; Sakellariou 1997: 103. Dakaris' *Stigkia.* Two concentric circuits and a cistern. Guarded the entrance to the Glykys Limen?

A) On the Kalamas river

Site #	Name	Walls	Size	Comment
19.	**Neochori**	?	?	G. Riginos, The Thesprotia Colloquium, May 13th 2006. Built to guard the ascent from Kalamas to Kokytos river valley?
20.	**Parapotamos**	?	?	Sakellariou 1997: 103.
21.	**Kallithea**	Ashlar, long and narrow	Circuit 800 m	Hammond 1967: 88; Sakellariou 1997: 103. *Tsourila* in Hammond?
22.	**Plakoti**	?	?	Sakellariou 1997: 103.
23.	**Pente Ekklesies**	Large ashlar, narrow blocks	Circuit 350 m	Hammond 1967: 89; Sakellariou 1997: 103.

				No towers extant, one gate.
24.	**Raveni**	Large polygonal, ashlar	Circuit 800 m	Hammond 1967: 186; Sakellariou 1997: 103. Cliff (S) side unwalled, otherwise walls. 6 towers, with internal crosswalls. 1 gate in the N. Built in the junction of Kalamas and a tributary, controlling narrow route to upper Kalamas. (PECS: 751)
25.	**Vrosyna**	Ashlar	Circuit 300 m	Hammond 1967: 187; Sakellariou 1997: 103. *Vrousina* in Hammond. Cistern within circuit. Located at a junction of Kalamas and a tributary, guarding the entry to upper Kalamas.
26.	**Paliouri**	?	?	Sakellariou 1997: 103.

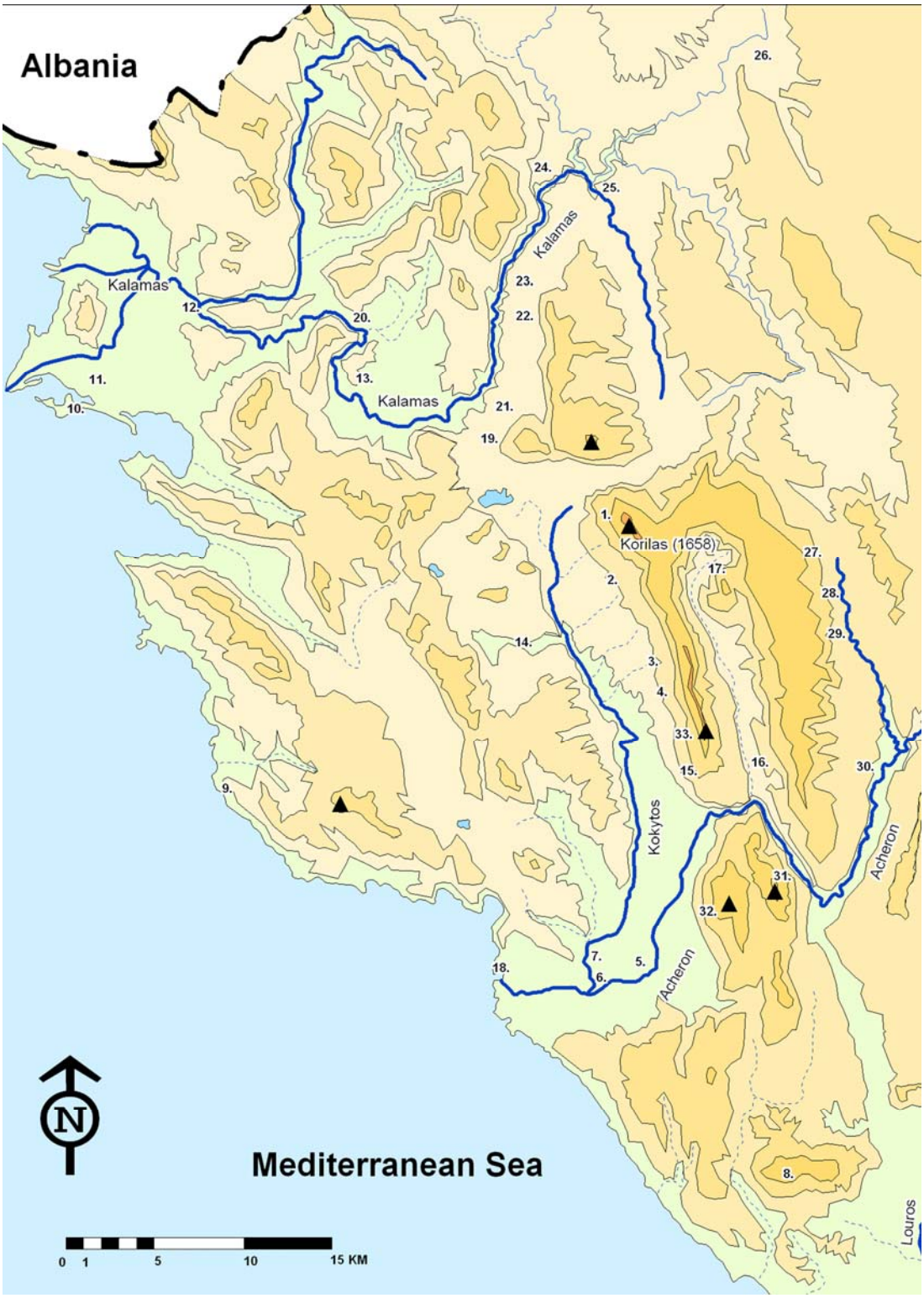
B) On the upper Acheron

Site #	Name	Walls	Size	Comment
27.	**Zotiko**	?	?	Sakellariou 1997: 104.
28.	**Bestia**	?	?	AKA *Bistria?* Sakellariou 1997: 104.
29.	**Sistrouni**	?	Circuit 650 m	Sakellariou 1997: 104. Listed also in Hammond 1967: 660.
30.	**Paleochori**	?	?	Sakellariou 1997: 104.
31.	**Trikastron**	?	Circuit 1050 m	Sakellariou 1997: 104. Listed also in Hammond 1967: 660. On a crag high above the gorge of Acheron, controlling the entry from Cassopaea to the Acheron plain. Strong towers, how many? Identified earlier with Pandosia. (PECS: 934)
32.	**Mouzakeika**	?	?	Sakellariou 1997: 104.

5. Visited, confirmed as *not* ancient despite claims

Site #	Name	Walls	Size	Comment
33.	**Gardhiki**	Mortared rubble	0.4 ha	Turkish fortified village? Also a WW2 anti-aircraft installation. (Forsén 2006a.) No ancient finds. Close to the high pass leading to the valley of Souli.

In addition to these, Sakellariou 1997: 103-104 claims several more fortifications as existing in the research area, especially in the Kalamas valley and the upper reaches of Acheron as well as in the plain of Acheron, but I have been unable to place them on the map. Tthe names of the villages have changed or maybe the 1:250000 Road editions map used as the base map just doesn't have the places mentioned. It might not be a great loss, as it is likely that many of the sites mentioned might not actually be Classical/Hellenistic. For instance in the Kokytos valley Sakellariou 1997 lists even Choika (# 15) and Gardhiki (# 33) as Hellenistic fortifications.



Map 3. Fortified sites in the Kokytos valley and the adjacent areas. The numbers refer to the Appendix. Agios Donatos is marked with number 3.

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Abbreviations:

ABSA:	*Annual of the British School at Athens*
BMC Pontus:	*A Catalogue of the Greek Coins in the British Museum. Catalogue of Greek Coins from Pontus, Paphlagonia, Bithynia and the Kingdom of Bosporus.* London 1889.
BMC Thessaly:	*A Catalogue of the Greek Coins in the British Museum. Thessaly to Aetolia.* London 1883.
DNP:	*Der Neue Pauly*. Enzyklopedia der Antike.
PECS:	*Princeton Encyclopedia of Classical Sites*. Princeton University Press, 1976
SNG Cop.:	*Sylloge Nummorum Graecorum Copenhagen.* Einar Munksgaard, Copenhagen 1941.
SNG Fitwilliam III:	*Sylloge Nummorum Graecorum Vol. IV The Fitzwilliam Museum. Leake and General Collections, Part III.* London 1951.
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